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<b>State:</b>	District of Columbia	<b>Filing Company:</b>	Kansas City Life Insurance Company
<b>TOI/Sub-TOI:</b>	H10G Group Health - Dental/H10G.000 Health Dental		
<b>Product Name:</b>	PJ/CJ143-GKCL[D-LRG-R]-DC0614		
<b>Project Name/Number:</b>	PJ/CJ143-GKCL[D-LRG-R]-DC0614/PJ/CJ143-GKCL[D-LRG-R]-DC0614		

## Filing at a Glance

Company:	Kansas City Life Insurance Company
Product Name:	PJ/CJ143-GKCL[D-LRG-R]-DC0614
State:	District of Columbia
TOI:	H10G Group Health - Dental
Sub-TOI:	H10G.000 Health Dental
Filing Type:	Rate
Date Submitted:	06/18/2014
SERFF Tr Num:	KCLF-129599803
SERFF Status:	Assigned
State Tr Num:	
State Status:	
Co Tr Num:	PJ/CJ143-GKCL[D-LRG-R]-DC0614
Implementation	01/01/2015
Date Requested:	
Author(s):	Brooke Hood
Reviewer(s):	Darniece Shirley (primary), Alula Selassie, John Morgan
Disposition Date:	
Disposition Status:	
Implementation Date:	
State Filing Description:	

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**TOI/Sub-TOI:** H10G Group Health - Dental/H10G.000 Health Dental  
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## General Information

Project Name: PJ/CJ143-GKCL[D-LRG-R]-DC0614  
Project Number: PJ/CJ143-GKCL[D-LRG-R]-DC0614  
Requested Filing Mode: Review & Approval  
Explanation for Combination/Other:  
Submission Type: New Submission  
Group Market Type: Employer, Association, Other  
Overall Rate Impact:  
Status of Filing in Domicile:  
Date Approved in Domicile:  
Domicile Status Comments:  
Market Type: Group  
Group Market Size: Large  
Explanation for Other Group Market Type: Labor Unions  
Filing Status Changed: 06/24/2014  
State Status Changed:  
Deemer Date:  
Submitted By: Brooke Hood  
Created By: Brooke Hood  
Corresponding Filing Tracking Number:

### Filing Description:

Kansas City Life Insurance Company  
NAIC: 65129-588  
FEIN: 44-0308260  
PJ/CJ143-GKCL[D-LRG-R]-DC0614 - Large Group Dental Rate Filing

With this filing, Kansas City Life Insurance Company is submitting for review its rate exhibits and actuarial memorandum for Group Dental Insurance. These rates are new and correspond to new dental forms (PJ143-DC & CJ143-DC). These forms were filed under SERFF filing KCLF-129449001, however the form filing was closed as the examiner advised that the rate filing must be approved before the form filing can be reviewed/approved. The proposed effective date of this filing is January 1, 2015. Together these forms and rates will be used to provide a group PPO dental plan that includes the essential health benefits that are applicable to stand-alone dental plans. This plan will be used as a traditional family plan, adult only, or pediatric only. This group dental plan will be marketed outside the state exchange, to employer groups, both small and large. The small group rate filing has been submitted under SERFF tracking number KCLF-129475204.

Please direct all inquiries regarding this filing to me at the address, phone number or email address shown in this filing.

Your favorable consideration and approval of this filing are respectfully requested.

## Company and Contact

### Filing Contact Information

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### Filing Company Information

Kansas City Life Insurance Company	CoCode: 65129	State of Domicile: Missouri
P O Box 219139	Group Code: 588	Company Type: Life
Kansas City, MO 64121-9139	Group Name:	State ID Number:
(800) 821-5529 ext. [Phone]	FEIN Number: 44-0308260	

**SERFF Tracking #:** KCLF-129599803

**State Tracking #:**

**Company Tracking #:** PJ/CJ143-GKCL[D-LRG-R]-  
DC0614

**State:** District of Columbia

**Filing Company:** Kansas City Life Insurance Company

**TOI/Sub-TOI:** H10G Group Health - Dental/H10G.000 Health Dental

**Product Name:** PJ/CJ143-GKCL[D-LRG-R]-DC0614

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## Filing Fees

Fee Required? No

Retaliatory? No

Fee Explanation:

State:	District of Columbia	Filing Company:	Kansas City Life Insurance Company
TOI/Sub-TOI:	H10G Group Health - Dental/H10G.000 Health Dental		
Product Name:	PJ/CJ143-GKCL[D-LRG-R]-DC0614		
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## Rate/Rule Schedule

Item No.	Schedule Item Status	Document Name	Affected Form Numbers (Separated with commas)	Rate Action	Rate Action Information	Attachments
1		Exhibit 9 - DC	PJ143-DC, CJ143-DC	New		Exhibit 9 - DC (06-04-2014).pdf,

**EXHIBIT 9**  
**Dental Rate Manual - Documentation**

## Step 1 Base Net Annual Claim Charges by Category

The Base Net Annual Claim Charges below vary by the distribution of census by reimbursement schedule which varies by 3-digit zip code.

Category of Service	In-Network		Out-of-Network		INN		OON	
	Adult	Child	Adult	Child	Adult	Child	Adult	Child
	Type of Service	Type of Service	Type of Service	Type of Service	Total Ann Cost	Total Ann Cost	Total Ann Cost	Total Ann Cost
Cleanings	A	A	A	A	51.97	49.30	68.63	67.96
Exams	A	A	A	A	28.17	28.47	48.33	49.25
Fluoride	n/a	A	n/a	A	0.04	13.66	0.05	18.38
Sealants	n/a	A	n/a	A	0.00	11.28	0.00	15.57
Space Maintainers	n/a	A	n/a	A	0.00	2.18	0.00	3.14
Emergency Pain	B	B	B	B	0.44	0.14	0.79	0.25
Oral Cancer Screening	n/a	n/a	n/a	n/a	0.26	0.00	0.26	0.00
Occlusal Guards	n/a	n/a	n/a	n/a	0.30	0.04	0.46	0.06
Radiographs - Bitewings	A	A	A	A	19.73	18.88	30.02	28.22
Radiographs - FMX	A	A	A	A	9.93	6.22	15.55	10.09
Restorations (Amalgams & Anterior)	B	B	B	B	41.77	39.84	64.43	61.68
Restorations (Posterior Resin)	n/a	n/a	n/a	n/a	0.07	0.05	0.11	0.08
Simple Extractions	B	B	B	B	9.47	7.08	16.82	13.14
Surgical Extractions	B	B	B	B	5.10	19.99	8.03	26.37
Oral Surgery	B	B	B	B	0.32	0.41	0.59	0.78
Endodontics	C	C	C	C	31.97	7.41	41.94	9.76
Periodontal Maintenance	A	A	A	A	6.97	0.05	7.98	0.05
Non-Surgical Periodontics	C	C	C	C	11.68	0.51	14.00	0.61
Surgical Periodontics	C	C	C	C	2.65	0.72	3.21	0.84
Inlays	C	C	C	C	0.13	0.01	0.23	0.03
Onlays	C	C	C	C	1.22	0.11	2.13	0.20
Crowns	C	C	C	C	81.19	7.09	102.69	9.85
Crown Repairs	C	C	C	C	0.79	0.05	1.00	0.06
Bridges	C	C	C	C	8.12	0.30	10.28	0.37
Bridge Repairs	C	C	C	C	0.01	0.00	0.01	0.00
Dentures	C	C	C	C	10.68	0.20	12.69	0.24
Denture Repairs	C	C	C	C	0.99	0.01	1.18	0.01
Implants	n/a	n/a	n/a	n/a	4.80	0.00	4.80	0.00
Temporomandibular Joint	n/a	n/a	n/a	n/a	9.00	9.00	9.00	9.00
Anesthesia	B	B	B	B	1.73	5.14	2.01	6.23
Orthodontic Coverage	n/a	D	n/a	D	0.00	74.68	0.00	74.68

### Product types are:

Passive PPO Plan ==>	In-Network(INN) and Out-of-Network(OON) benefits are identical and INN reimbursement is from the PPO schedule, while OON reimbursement is from the R&C schedule.
Active PPO Plan ==>	In-Network(INN) and Out-of-Network(OON) benefits can be different and INN reimbursement is from the PPO schedule, while OON reimbursement is from the R&C schedule.
MAC PPO Plan ==>	In-Network(INN) and Out-of-Network(OON) benefits can be different but both INN & OON reimbursement are from the PPO schedule.
Schedule Plan ==>	Regardless of whether services are provided by INN or OON providers, benefits are always reimbursed from a pre-defined reimbursement schedule.
Indemnity Plan ==>	Regardless of whether services are provided by INN or OON providers, benefits are always reimbursed from the R&C reimbursement schedule.

## Step 2 Trend Factor Adjustment

Trend Factors:		Factor	Eff date of Schedule
1	Network	0.010	1/1/2013
2	R&C	0.030	4/1/2012
3	Schedule	0.000	1/1/2012

Note: Trend includes both price and utilization

## Step 3 Rate Guarantee Adjustment

The standard rate guarantee is 12 months. If a 24-month rate guarantee is selected, then an additional 6 months of trend is included.

## Step 4 R&C Adjustment

Starting Claim Costs are based on the underlying reimbursement schedule. For Indemnity plans and OON claims on PPO plans the 90th percentile R&C is assumed. However, if a different R&C percentile is used for reimbursements, the following factors apply.

	Option B	Option A
R&C Adjustment Factor	Factor	Factor
	0.961	0.874

Option A = CDN+25% but not more than C4H80th

Option B = CDN+50% but not more than C4H90th

Note: This step is NOT used in the rate calculation except when an R&C schedule is used to reimburse claims.

Note: This step does not apply to Orthodontia since this is a flat dollar benefit not changing with changes in R&C.

Step 5 Sub-Total 1

Multiply Steps 1 through 4.

Step 6 Deductible Adjustment

Deductible Not Waived for A							
Deductible		Adult			Child		
		A	B	C	A	B	C
1	\$0	0.00	0.00	0.00	0.00	0.00	0.00
2	\$25 Annual	-1.04	-0.03	0.00	-0.99	-0.05	0.00
3	\$50 Annual	-2.03	-0.06	-0.01	-1.98	-0.09	-0.01
4	\$75 Annual	-3.01	-0.09	-0.02	-2.95	-0.16	-0.02
5	\$100 Annual	-3.96	-0.16	-0.03	-3.88	-0.23	-0.03
6	\$150 Annual	-4.90	-0.45	-0.20	-4.81	-0.49	-0.10
7	\$200 Annual	-5.81	-0.90	-0.45	-5.50	-0.95	-0.21
8	\$250 Annual	-6.30	-1.50	-0.85	-6.05	-1.60	-0.29
9	\$75 Lifetime	-1.54	-0.01	0.00	-1.49	-0.07	-0.01
10	\$100 Lifetime	-2.03	-0.06	-0.01	-1.98	-0.09	-0.01
11	\$150 Lifetime	-3.01	-0.09	-0.02	-2.95	-0.16	-0.02
12	\$200 Lifetime	-3.96	-0.16	-0.03	-3.88	-0.23	-0.03
13	\$250 Lifetime	-4.86	-0.44	-0.18	-4.78	-0.48	-0.09

Deductible Waived for A							
Deductible		Adult			Child		
		A	B	C	A	B	C
1	\$0	0.00	0.00	0.00	0.00	0.00	0.00
2	\$25 Annual	0.00	-0.58	-0.26	0.00	-0.61	-0.05
3	\$50 Annual	0.00	-1.21	-0.47	0.00	-1.21	-0.10
4	\$75 Annual	0.00	-1.81	-0.70	0.00	-1.81	-0.13
5	\$100 Annual	0.00	-2.41	-0.91	0.00	-2.37	-0.18
6	\$150 Annual	0.00	-3.15	-1.41	0.00	-3.10	-0.26
7	\$200 Annual	0.00	-4.10	-1.91	0.00	-4.09	-0.32
8	\$250 Annual	0.00	-5.00	-2.45	0.00	-5.04	-0.39
9	\$75 Lifetime	0.00	-0.94	-0.33	0.00	-0.91	-0.08
10	\$100 Lifetime	0.00	-1.21	-0.47	0.00	-1.21	-0.10
11	\$150 Lifetime	0.00	-1.81	-0.70	0.00	-1.81	-0.13
12	\$200 Lifetime	0.00	-2.41	-0.91	0.00	-2.37	-0.18
13	\$250 Lifetime	0.00	-3.01	-1.12	0.00	-2.90	-0.23

Note: Deductible credits assume a separate deductible is satisfied for each family member. If a family certificate is limited to three deductibles use 50% of the child deductible adjustment. If a family certificate is limited to two deductibles use 25% of the child deductible adjustment.

Family Deductible Limit	Limit	Factor
1	none	100%
2	2x	25%
3	3x	50%

Step 7 Sub-Total 2

Sum Steps 5 and 6.

Step 8 Plan Maximum Adjustment

		Adult				Child			
	Maximum	A	B	C	D	A	B	C	D
1	\$500	1.00	0.92	0.60	0.60	1.00	0.92	0.60	0.60
2	\$750	1.00	0.98	0.76	0.80	1.00	0.98	0.76	0.80
3	\$1,000	1.00	1.00	0.86	1.00	1.00	1.00	0.86	1.00
4	\$1,250	1.00	1.00	1.11	1.20	1.00	1.00	1.11	1.20
5	\$1,500	1.00	1.00	1.25	1.40	1.00	1.00	1.25	1.40
6	\$1,750	1.00	1.00	1.35	1.60	1.00	1.00	1.35	1.60
7	\$2,000	1.00	1.00	1.45	1.80	1.00	1.00	1.45	1.80
8	\$2,250	1.00	1.00	1.53	2.00	1.00	1.00	1.53	2.00
9	\$2,500	1.00	1.00	1.60	2.20	1.00	1.00	1.60	2.20

Note: Plan Maximum Adjustment factors for Classes A, B, & C are per person plan year maximums while Class D is a per person lifetime maximum.  
Note: For plans that have the Preventive Reward, the Plan Maximum Adjustment Factor used in rating is \$250 plus the base Plan Maximum amount.



Step 9 Maximum Roll Forward

	Maximum	Adult			Child		
		A	B	C	A	B	C
1	\$500	1.000	1.010	1.050	1.000	1.035	1.020
2	\$750	1.000	1.010	1.050	1.000	1.018	1.050
3	\$1,000	1.000	1.000	1.050	1.000	1.000	1.080
4	\$1,250	1.000	1.000	1.050	1.000	1.000	1.090
5	\$1,500	1.000	1.000	1.050	1.000	1.000	1.095
6	\$1,750	1.000	1.000	1.050	1.000	1.000	1.090
7	\$2,000	1.000	1.000	1.050	1.000	1.000	1.085
8	\$2,250	1.000	1.000	1.058	1.000	1.000	1.080
9	\$2,500	1.000	1.000	1.065	1.000	1.000	1.075

Note: Maximum Roll Forward factors for Classes A, B, & C are per person plan year maximums.

Step 10 Deferred Benefits Adjustment

Deferred Benefits Adjustment factors vary based on whether the group has had prior coverage or not. It is applied to the type of service with deferred benefits. For waiting period plans the deferred benefit adjustment occurs in this step while the adjustment for graded coinsurance is in the coins. step.

Deferred Benefit Adjustment factors are developed from assumptions on annual employee lapses, annual employee growth and group persistency. Current assumptions are 5% employee lapses per year, 10% employee growth per year and 5-year group persistency.

It is assumed that takeover credits are provided to individuals with coverage under the prior plan.

Takeover Groups

Waiting Period Plans	Months	A	B	C
0 months	0	1.000	1.000	1.000
3 months	3	0.995	0.995	0.995
6 months	6	0.930	0.930	0.930
12 months	12	0.870	0.870	0.870
18 months	18	0.820	0.820	0.820
24 months	24	0.779	0.779	0.779

Virgin Groups

Waiting Period Plans	Months	A	B	C
0 months	0	1.100	1.100	1.150
3 months	3	0.975	0.975	0.975
6 months	6	0.855	0.855	0.855
12 months	12	0.721	0.721	0.721
18 months	18	0.599	0.599	0.599
24 months	24	0.488	0.488	0.488

Graded Coinsurance & Graded Maximum Plans	Takeover Factor	Virgin Factor
0 Year 1	12.96%	27.87%
1 Year 2	9.19%	23.36%
2 Year 3+	77.85%	48.78%

Work area for Graded Coinsurance calculation

	Aggregate Coinsurance In-Network	Aggregate Coinsurance Out-of-Network
Class A	100%	100%
Class B	80%	80%
Class C	50%	50%
Class D (ortho)	50%	50%

Step 11 Percentage of Covered Expenses

The Percentage of Covered Expenses (i.e. coinsurance) is the amount the insurance company will pay for a Covered Procedure. This amount may vary by class of service as well as Plan Year. Percentages are in increments of 5 percentage points and range from 0% to 100%.

Maximum	Adult				Child			
	A	B	C	D	A	B	C	D
100%	1.00	1.20	1.50	1.00	1.00	1.20	1.50	1.00
95%	0.94	1.10	1.40	0.95	0.94	1.10	1.40	0.95
90%	0.87	1.00	1.30	0.90	0.87	1.00	1.30	0.90
85%	0.81	0.90	1.20	0.85	0.81	0.90	1.20	0.85
80%	0.74	0.80	1.10	0.80	0.74	0.80	1.10	0.80
75%	0.68	0.73	1.00	0.75	0.68	0.73	1.00	0.75
70%	0.61	0.67	0.90	0.70	0.61	0.67	0.90	0.70
65%	0.55	0.60	0.80	0.65	0.55	0.60	0.80	0.65
60%	0.48	0.53	0.70	0.60	0.48	0.53	0.70	0.60
55%	0.42	0.47	0.60	0.55	0.42	0.47	0.60	0.55
50%	0.35	0.40	0.50	0.50	0.35	0.40	0.50	0.50
45%	0.32	0.41	0.45	0.45	0.32	0.41	0.45	0.45
40%	0.28	0.36	0.40	0.40	0.28	0.36	0.40	0.40
35%	0.25	0.32	0.35	0.35	0.25	0.32	0.35	0.35
30%	0.21	0.27	0.30	0.30	0.21	0.27	0.30	0.30
25%	0.18	0.23	0.25	0.25	0.18	0.23	0.25	0.25
20%	0.14	0.18	0.20	0.20	0.14	0.18	0.20	0.20
15%	0.11	0.14	0.15	0.15	0.11	0.14	0.15	0.15
10%	0.07	0.09	0.10	0.10	0.07	0.09	0.10	0.10
5%	0.04	0.05	0.05	0.05	0.04	0.05	0.05	0.05
0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Step 12 Dependent Age Adjustment

Maximum Dependent Age	Child			
	A	B	C	D
19	0.952	0.952	0.952	0.830
20	0.964	0.964	0.964	0.920
21	0.976	0.976	0.976	0.960
22	0.988	0.988	0.988	0.980
23	1.000	1.000	1.000	1.000
24	1.013	1.013	1.013	1.020
25	1.025	1.025	1.025	1.040
26	1.038	1.038	1.038	1.060

Step 13 Age / Gender Adjustment

Adult Adjustment						
Employee Age Group	Male			Female		
	A	B	C	A	B	C
under age 25	0.95	1.20	0.62	1.15	1.30	0.75
25-29	0.95	1.20	0.62	1.15	1.30	0.75
30-34	0.90	0.95	0.66	1.00	1.00	0.71
35-39	0.94	0.95	0.82	1.00	0.98	0.91
40-44	0.96	0.96	0.98	1.00	0.96	1.04
45-49	0.96	0.96	1.18	1.00	0.94	1.17
50-54	0.96	0.96	1.23	1.00	0.92	1.25
55-59	1.00	0.96	1.34	1.00	0.90	1.35
60-64	1.02	0.98	1.55	1.00	0.88	1.47
65+	1.20	1.05	2.00	1.00	0.88	1.81

Note: The adult age/gender adjustment is calculated as follows: by class of service, multiply the number of males and females per age bracket (eligible employees for virgin groups and enrolled employees for takeover groups) by their respective factors, sum over all ages, and divide by the total number of males and females. Use the resulting factors for adults.

Step 14 Sub-Total 3

Multiply Steps 7 through 13.

Step 15 Combined Sub-Total

Add all Adult and Child Sub-Totals 3 for Classes A, B, C and D separately for In & Out-of-Network.

Step 16 Temporomandibular Joint Disorder (TMJ)

	Lifetime Maximum	Factor
0	\$0	1.000
1	\$500	1.010
2	\$1,000	1.025
3	\$1,500	1.050

Note: Base plan TMJ benefits are selected through the classification of services category, only Lifetime Maximum plans are selected here.

Step 17 Bleaching

	Lifetime Maximum	Factor
0	\$0	1.000
1	\$500	1.015
2	\$750	1.020

Step 18 Industry Adjustment

Note: Industry adjustments are given for SIC industry designations in Appendix A.

Step 19 Case Size Adjustment

Number of Enrolled Employees	Factor
2 -9	1.100
10 -24	1.050
25 +	1.000

Factors are based on an assumed small group plan design that mitigates utilization and is at least as restrictive as the following example: (i.e. no hi-lo plan, endo, perio, os in Type 3, 100/80/50, 12-mo w.p. on Type 3 and a \$50 deductible 3 per family).

Step 20 Choice Plans

This step loads rates (accounts for expected anti-selection) whenever the product offering provides a choice of plan designs to the employee.

Choice Plans		Factor
0	None	1.000
1	Hi/lo	1.030

Step 21 Penetration Adjustment

The basic in-network penetration assumption is a percentage based on the number of participating dentists in each 3-digit zip code region, divided by the estimated number of total dentists in each 3-digit zip code region. This basic penetration assumption is then adjusted by the value of the in-network (INN) plan design as compared to the out-of-network (OON) plan design (i.e. coinsurance, deductible and annual maximum comparison).

Step 22 Sub-Total 4

Calculate the product of Steps 15 through 21.

Step 23 Blended In & Out Claim Costs

Add Adult and Child Subtotals for In & Out-of-Network.

Step 25 PPO pepm Fee

This is the per employee per month charge for PPO network access.

	Factor
PPO pepm Fee	\$ 0.60

Step 26 Target Loss Ratio

Expenses Loads	Factor
Commission	15.00%
Overrides	5.00%
Administration	13.00%
Premium Tax	2.00%
Risk Margin	5.00%
Total Expense	40.00%

Expense Percent	60.0%
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Step 27 Charged and Manual Premium

Charged Premium is the Blended In & Out Claims Costs divided by the Target Loss Ratio.

Manual Premium is the Blended In & Out Claims Costs divided by the Target Loss Ratio.

Step 28 Manual Premium Rates By Tier Structure

Tier Structure Formulas				
		Employee	Spouse	Child
1 Tier	Per Adult	1.000	-	-
	Per Child	-	-	1.000
2 Tier	Employee Only	1.000	-	-
	Employee and Family	1.000	0.885	1.433
3 Tier	Employee Only	1.000	-	-
	Employee & 1 Dependent	1.000	0.806	0.189
	Employee & 2+ Dependents	1.000	0.893	2.086
4 Tier	Employee Only	1.000	-	-
	Employee and Spouse	1.000	1.000	-
	Employee and Children	1.000	-	1.664
	Employee and Family	1.000	1.000	2.040

Step 29 Employer Contribution / Participation Adjustment

Employer Contribution Level		Factor
0%	29%	1.10
30%	79%	1.00
80%	100%	0.90

### SIC Industry Factors

SIC Lower	SIC Upper	Category	Description	Factor
100	199	Agriculture	Agriculture - Crops	0.825
200	299	Agriculture	Agriculture -Livestock	0.850
300	399	Agriculture	Agriculture, Forestry, Fishing	0.875
400	499	Agriculture	Agriculture, Forestry, Fishing	0.875
500	599	Agriculture	Agriculture, Forestry, Fishing	0.875
600	699	Agriculture	Agriculture, Forestry, Fishing	0.875
700	799	Agriculture	Agriculture - Services	0.875
800	899	Agriculture	Forestry	0.875
900	999	Agriculture	Fishing	0.875
1000	1099	Mining	Metal Mining	1.000
1100	1199	Mining	Mining	1.000
1200	1299	Mining	Coal Mining	1.000
1300	1399	Mining	Oil/Gas	0.875
1400	1499	Mining	Nonmetallic Mining	1.000
1500	1599	Construction	General Contractors	0.950
1600	1699	Construction	Heavy Construction	0.925
1700	1799	Construction	Special Trade Contractors	0.925
2000	2099	Manufacturing	Food Products	0.900
2100	2199	Manufacturing	Tobacco	0.950
2200	2299	Manufacturing	Textile Mills	0.900
2300	2399	Manufacturing	Apparel	0.900
2400	2499	Manufacturing	Lumber & Wood	0.875
2500	2599	Manufacturing	Furniture	0.900
2600	2699	Manufacturing	Paper & Allied Products	0.950
2700	2799	Manufacturing	Printing	0.975
2800	2899	Manufacturing	Chemicals	0.975
2900	2999	Manufacturing	Petroleum & Coal	0.925
3000	3099	Manufacturing	Rubber & Plastics	0.975
3100	3199	Manufacturing	Leather	1.000
3200	3299	Manufacturing	Stone, Clay, Glass, Concrete	0.875
3300	3399	Manufacturing	Metals	0.900
3400	3499	Manufacturing	Fabricated Metals	0.925
3500	3599	Manufacturing	Machinery	1.000
3600	3699	Manufacturing	Electrical Equipment	1.050
3700	3799	Manufacturing	Transportation Equipment	0.975
3800	3899	Manufacturing	Instruments	1.050
3900	3999	Manufacturing	Misc. Manufacturing	1.000
4000	4099	Transportation	Railroad	0.900
4100	4199	Transportation	Local Transit	0.900
4200	4299	Transportation	Trucking & Warehousing	0.900
4300	4399	Transportation	US Postal Service	0.900
4400	4499	Transportation	Water Transport	0.900
4500	4599	Transportation	Air Transport	0.950
4600	4699	Transportation	Pipeline	0.900
4700	4799	Transportation	Transport Services	0.900
4800	4899	Utilities	Communication	0.950
4900	4999	Utilities	Electric, Gas, etc	0.850
5000	5099	Trade	Wholesale - Durable	1.000
5100	5199	Trade	Wholesale - Non-Durable	1.025
5200	5299	Trade	Retail Trade - Hardware	0.950
5300	5399	Trade	Retail Trade - General	0.925
5400	5499	Trade	Retail Trade - Food	0.925



### SIC Industry Factors

SIC Lower	SIC Upper	Category	Description	Factor
5500	5599	Trade	Retail Trade - Automotive	0.975
5600	5699	Trade	Retail Trade - Apparel	0.975
5700	5799	Trade	Retail Trade - Furniture	0.950
5800	5899	Trade	Retail Trade - Restaurants	0.900
5900	5999	Trade	Retail Trade - Misc.	1.000
6000	6099	Finance	Banks	1.100
6100	6199	Finance	Credit Agencies	1.100
6200	6299	Finance	Brokers	1.100
6300	6399	Finance	Insurance Carriers	1.100
6400	6499	Finance	Insurance Agents	1.100
6500	6599	Finance	Real Estate Agents	1.100
6600	6699	Finance	Real Estate Agents	1.100
6700	6999	Finance	Holding Invest. Co.	1.100
7000	7199	Services	Hotels	0.900
7200	7299	Services	Personal Service	0.975
7300	7499	Services	Business Service	0.950
7500	7599	Services	Auto Repair & Garages	0.900
7600	7799	Services	Repair Service	0.900
7800	7899	Services	Motion Pictures	0.900
7900	7999	Services	Recreation	1.025
8000	8020	Health Services	Medical	1.100
8021	8021	Health Services	Dental	0.000
8022	8049	Health Services	Medical	1.100
8050	8069	Health Services	Facility	0.950
8070	8071	Health Services	Medical	1.100
8072	8072	Health Services	Dental	0.000
8073	8099	Health Services	Medical	1.100
8100	8199	Services	Legal	1.200
8200	8299	Services	Education	1.200
8300	8399	Services	Social Service	1.050
8400	8599	Services	Museums & Zoos	1.050
8600	8699	Services	Nonprofit Organization's	1.050
8700	8799	Services	Engineering, Accounting	1.050
8800	8899	Services	Private Households	1.100
8900	9099	Services	Misc. Services	1.000
9100	9199	Public Admin	General Gov't	1.025
9200	9299	Public Admin	Judicial	1.025
9300	9399	Public Admin	Public Finance	1.000
9400	9499	Public Admin	Human Resources Admin	0.975
9500	9599	Public Admin	Housing Admin	1.050
9600	9699	Public Admin	Economic Program Admin	1.025
9700	9899	Public Admin	International & National Security	1.000
9900	9999	XXX	No Code	1.000

<b>State:</b>	District of Columbia	<b>Filing Company:</b>	Kansas City Life Insurance Company
<b>TOI/Sub-TOI:</b>	H10G Group Health - Dental/H10G.000 Health Dental		
<b>Product Name:</b>	PJ/CJ143-GKCL[D-LRG-R]-DC0614		
<b>Project Name/Number:</b>	PJ/CJ143-GKCL[D-LRG-R]-DC0614/PJ/CJ143-GKCL[D-LRG-R]-DC0614		

## Supporting Document Schedules

<b>Satisfied - Item:</b>	Cover Letter All Filings
<b>Comments:</b>	
<b>Attachment(s):</b>	CoverLtr_[143LRG-R]DC06.14.pdf
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Bypassed - Item:</b>	Certificate of Authority to File
<b>Bypass Reason:</b>	Not applicable
<b>Attachment(s):</b>	
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Satisfied - Item:</b>	Actuarial Memorandum
<b>Comments:</b>	
<b>Attachment(s):</b>	Actuarial Memorandum_PJ143[DCv6.4.14].pdf
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Satisfied - Item:</b>	Actuarial Justification
<b>Comments:</b>	
<b>Attachment(s):</b>	Actuarial Memorandum_PJ143[DCv6.4.14].pdf
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Bypassed - Item:</b>	District of Columbia and Countrywide Loss Ratio Analysis (P&C)
<b>Bypass Reason:</b>	N/A - new filing
<b>Attachment(s):</b>	
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Bypassed - Item:</b>	District of Columbia and Countrywide Experience for the Last 5 Years (P&C)
<b>Bypass Reason:</b>	N/A - new filing
<b>Attachment(s):</b>	
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>State:</b>	District of Columbia	<b>Filing Company:</b>	Kansas City Life Insurance Company
<b>TOI/Sub-TOI:</b>	H10G Group Health - Dental/H10G.000 Health Dental		
<b>Product Name:</b>	PJ/CJ143-GKCL[D-LRG-R]-DC0614		
<b>Project Name/Number:</b>	PJ/CJ143-GKCL[D-LRG-R]-DC0614/PJ/CJ143-GKCL[D-LRG-R]-DC0614		

<b>Bypassed - Item:</b>	Actuarial Memorandum and Certifications
<b>Bypass Reason:</b>	Not applicable to this filing.
<b>Attachment(s):</b>	
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Bypassed - Item:</b>	Unified Rate Review Template
<b>Bypass Reason:</b>	Not applicable to this filing.
<b>Attachment(s):</b>	
<b>Item Status:</b>	
<b>Status Date:</b>	



**KANSAS CITY LIFE  
INSURANCE COMPANY**

Broadway at Armour / Box 219139 / Kansas City, Missouri 64121-9139  
Telephone: (816) 753-7000

June 18, 2014

District of Columbia Department of  
Insurance  
810 1<sup>st</sup> Street, N.E., Suite 701  
Washington, District of Columbia 20002

RE: Kansas City Life Insurance Company  
NAIC: 65129-588  
FEIN: 44-0308260  
PJ/CJ143-GKCL[D-LRG-R]-DC0614 Large Group Dental Rate Filing

Dear Sir or Madam:

With this filing, Kansas City Life Insurance Company is submitting for review its rate exhibits and actuarial memorandum for Group Dental Insurance. These rates are new and correspond to new dental forms (PJ143-DC & CJ143-DC). These forms were filed under SERFF filing KCLF-129449001, however the form filing was closed as the examiner advised that the rate filing must be approved before the form filing can be reviewed/approved. The proposed effective date of this filing is January 1, 2015. Together these forms and rates will be used to provide a group PPO dental plan that includes the essential health benefits that are applicable to stand-alone dental plans. This plan will be used as a traditional family plan, adult only, or pediatric only. This group dental plan will be marketed outside the state exchange, to employer groups, both small and large. The small group rate filing has been submitted under SERFF tracking number KCLF-129475204.

Please direct all inquiries regarding this filing to me at the address, phone number or email address shown in this filing.

Your favorable consideration and approval of this filing are respectfully requested.

Sincerely,

Brooke M. Hood  
Compliance Analyst III  
Kansas City Life Insurance Company  
3520 Broadway  
Kansas City, Missouri 64111  
816.753.7299, ext. 8420  
Fax: 816.753.3018  
bhoo@kclife.com



**Kansas City Life Insurance Company**  
**Group Dental Insurance Policy**  
**Actuarial Memorandum**  
**Policy Number PJ/CJ143**

**Scope and Purpose**

The purpose of this actuarial memorandum is to describe the benefits and assumptions for the attached Group Dental Insurance Policy, and to certify that this form is in compliance with the applicable laws and regulations of the state. This Policy Form applies to all group sizes. This memorandum is not intended to be used for any other purpose.

**Benefit Description**

This Form is designed to provide Dental Insurance benefits for employees and members of employer groups and associations and for their dependents. It is intended to be offered outside of the public exchanges. The standalone benefit plans for children under the age 19, are intended to provide pediatric Essential Health Benefits (EHB) in compliance with the Affordability Care Act (ACA) Standard Pediatric Dental Plan (SPDP) at either the high level (85%) or the low level (70%) of Actuarial Value. Traditional Adult Dental Plans (TADP) covering adults and adult children ages 19 and older can also be offered under this Policy Form, and are intended to provide dental benefits as described below in this section of the memorandum. The premiums may be paid by the employee, employer, member, association, or any combination.

- Under both the child EHB SPDP and adult TADP the benefits include coverage for some or all of the following types of dental services: preventive, diagnostic, basic, major, and orthodontia.
- Under the child EHB SPDP, plan design includes a deductible, annual maximum (out of network only), coinsurance, and out-of-pocket limit (in network only). The plan design can vary by type of service whether in or out of network. There can also be waiting periods, frequency limits, and age limits for certain procedures, as defined in the employee's or member's Policy.
- Under the adult TADP, plan designs include reimbursement for covered dental expenses found in the employee's or member's Policy, subject to any deductible, coinsurance (i.e. insurance percentages), and annual maximum. In addition, certain procedures may have a waiting period, age limits and/or frequency limits.
- The benefit payable for each covered procedure performed by a participating provider is based on a fee schedule accepted by the network of participating providers in the state. The benefit payable for each procedure performed by a non-participating provider is based on either this same network fee schedule for some plans Maximum Allowable Charge (MAC) plans, or is based on the company's definition of reasonable and customary fees for Preferred Provider Organization (PPO) plans.

- For new Kansas City Life Insurance Company (KCL) customers effective on or after 1/1/2015, KCL will offer the adult TADP plan design described in this memorandum along with the child EHB SPDP plan designs also described here. While KCL is not required to include EHB benefits in its plans, we want to have these benefits available for employer groups that want to include them.
- For existing (KCL) dental customers, KCL intends to update its existing standalone dental plans to include the (EHB) for children under the age of 19. KCL will pay claims based on the greater of the EHB benefits or the customer's existing plan of benefits. KCL's intention is to process these claims to ensure the lowest out-of-pocket cost for the dependents under the age of 19.

### **Renewability Clause**

This is an annually renewable Form for an annually rated group Policy. After an initial 12 month contract period, the contract is renewable on a month to month basis.

### **Marketing Method**

This Policy is intended to be distributed to employer groups and associations through independent agents and brokers.

### **Underwriting**

There is no individual underwriting of this Policy. This Policy is guaranteed issue.

### **Morbidity**

Claim costs for this plan are initially calculated separately for each of several categories of dental services (cleanings, exams, fluoride, etc.), and also separately for adults and children, and separately by in-network and out-of-network. The initial total charges are calculated by taking the product of the average charges for each category of service and the average annual utilization rates for each category of service. The average utilization rates were provided by an actuarial consulting firm, Actuarial Worksite Marketing Services, Inc. (AWMS), and are based on experience data contributed by their firm's dental clients during the period 2010-2012. The resulting initial total charges are then combined into four classes (preventive, basic, major, and ortho) by summing up each category, and are then converted to monthly costs by dividing by 12. The resulting base monthly charges are then adjusted as appropriate for deductibles, coinsurance, annual maximums, out of pocket limits, etc. to derive the projected monthly claim costs. These benefit adjustments are also based on factors provided by AWMS. The resulting monthly claim costs for both adults and children are then summed into in-network and out-of-network sub-totals, weighted by the assumed network penetration and combined, and finally divided by the target loss ratio to result in the projected monthly premium rates.

### Actuarial Value Calculation

For the child EHB SPDP only, Actuarial Value calculations have been performed and are shown below. This calculation divides the net in-network charges after deductible and coinsurance by the total in-network charges before cost sharing (e.g. deductible and coinsurance). The Actuarial Value for each of these plans is within 2% of the target Actuarial Value of 85% for the high plan and 70% for the low plan. The Actuarial Value is the same for both PPO and MAC plans.

Actuarial Value Calculation	Low	High
Gross Monthly Charges - IN Child	31.96	31.96
Net Monthly Charges - IN Child	22.50	27.74
Actuarial Value - IN Child	70.4%	86.8%

### Expenses

Expense assumptions are based on the company's expected costs for selling and administering this Group Dental Policy Form. Total expenses on this policy form will not exceed 35.0%.

Expenses Loads	Factor
Commission	15.00%
Overrides	5.00%
Administration	13.00%
Premium Tax	2.00%
Risk Margin	5.00%
Total Expense	40.00%

### Anticipated Loss Ratio

The Anticipated Loss Ratio for this Form is no less than 60.0% at each duration.

### Contingency and Risk Margins

This Form includes a contingency and risk margin of 5% of premium.

### Proposed Effective Date

This form will become effective 1/1/2015, upon approval by the Department of insurance.

### Persistency

Since this is an annually renewable Policy Form there is no persistency assumption necessary. Morbidity is assumed to be at the ultimate level in the first and all future durations. Any projected future morbidity changes will be incorporated into the premiums using an annual trend factor.

### **Premium Modalization Rules**

This Form can be billed weekly, bi-weekly, monthly, quarterly, semiannually, or annually. Weekly premiums are 1/52 of annual premiums, bi-weekly premiums are 1/26 of annual premiums, and monthly premiums are 1/12 of annual premiums. Quarterly premiums are 1/4 of annual premiums. Semiannual premiums are 1/2 of annual premiums.

### **Premium Classes**

This Form has no discrete premium classes for the child EHB SPDP. However, for the adult TADP certain factors are considered in pricing. These factors include: plan design, group size, contribution/participation percentage, prior coverage, geographic location, industry, and average age and gender of the employees/members.

### **Issue Age Range**

This Form can be issued to all ages. The child EHB SPDP will only be issued to children under the age of 19, and the rates will not vary by age. For the adult TADP, initial premiums are based on the issue ages of the entire group, union or association, and premiums are the same for all employees/members within it.

### **Area Factors**

For the child EHB SPDP, there are no area specific adjustments to rates. However, for the adult TADP, area factors are based on either the geographic location of each employee's or member's place of employment or home using the first 3 digits of the location's zip code. The data used to develop the area factors are based on a database that provides average charge information for each dental procedure by 3 digit zip code grouping. This database is used to develop relativity factors that reflect the differences in average dental charges in each location. Provider penetration percentages are based on the number of practicing network providers as compared to all practicing providers.

<b>Zip</b>	<b>Area Adjustor</b>	<b>Provider Penetration</b>
200	1.282	32.6%
202	1.282	0.0%
203	1.282	0.0%
204	1.282	0.0%
205	1.282	0.0%

### **Average Monthly Premium**

For the child EHB SPDP, benefits and monthly premiums for the Low and High plans, on a PPO and MAC basis, are shown in the following table and in the attached rate development in the attached rate **Exhibits 1 - 4**.

<b>PPO &amp; MAC Plan Benefits</b>				
<b>Benefits</b>	<b>Low - INN</b>	<b>Low - OON</b>	<b>High - INN</b>	<b>High - OON</b>
Deductible*	\$125	\$125	\$50	\$50
OOP Maximum**	\$350 / \$700	n/a	\$350 / \$700	n/a
Annual Maximum	unlimited	unlimited	unlimited	unlimited
Preventive (Type 1) - coins.	100%	100%	100%	100%
Basic (Type 2) - coins.	50%	50%	80%	80%
Major (Type 3) - coins.	50%	50%	50%	50%
Med. Nec. Ortho***	50%	not covered	50%	not covered

\* Deductible is per child and applies to all services except Med. Nec. Ortho.

\*\* Out-of-Pocket Maximum is \$350 per child or \$700 for all children combined.

\*\*\* 24-month waiting period on Med. Nec. Ortho. Only.

**PPO Plan  
Premiums**

EHB SPDP Low Plan	\$51.66
EHB SPDP High Plan	\$63.23

**MAC Plan  
Premiums**

EHB SPDP Low Plan	\$36.06
EHB SPDP High Plan	\$45.59

For the adult TADP, sample anticipated average annual premiums per certificate are provided below. The attached **Exhibits 5 & 6** and **Exhibits 7 & 8** are the benefit design and rate calculation pages for this sample average plan for PPO and MAC plans, respectively. They are based on a standard plan design with a \$50 deductible 3 per family limit waived for Type 1 services, \$1,500 annual maximum, \$1,500 lifetime maximum child orthodontia benefit, 12-month waiting period for Type 3 & 4 services, retail trade industry, 100%/80%/50%/50% Percentage of Covered Expense (i.e. coinsurance) for Type 1/2/3/4 services, assumed average age of 40-44 and a 50%/50% male/female split. While other plan design and rating combinations are possible with the rating methodology, the plan design provided here, along with the rates shown below, is considered a “middle of the road” plan design, neither excessively high nor low.

EE is defined as employee/member coverage only. ES is defined as employee/member and spouse coverage. EC is defined as employee/member and children. EF is defined as employee/member and family. Voluntary is defined as up to 29% employer contribution or employee participation. Contributory is defined as between 30% and 79% employer contribution or employee participation. Finally, employer paid is defined as 80% or more employer contribution or employee participation.

**PPO Plan Premiums - Traditional Adult Dental Plan (TADP)**

4-Tier	Voluntary	Contributory	Employer Paid
EE	\$48.51	\$44.10	\$39.69
ES	\$95.92	\$87.20	\$78.48
EC	\$129.16	\$117.42	\$105.68
EF	\$194.82	\$177.11	\$159.40

**MAC Plan Premiums - Traditional Adult Dental Plan (TADP)**

4-Tier	Voluntary	Contributory	Employer Paid
EE	\$36.60	\$33.27	\$29.94
ES	\$72.10	\$65.54	\$58.99
EC	\$98.39	\$89.45	\$80.50
EF	\$147.87	\$134.43	\$120.99

Also, provided as **Exhibit 9**, are all rating options and associated factors available within the adult TADP dental manual rating system, which provides a comprehensive listing of all possible benefit options within it.

**Trend Assumption**

An annual trend factor, currently 6% and not to exceed 10%, will be used to derive the premiums rates for effective dates beginning after January 1, 2015. This factor reflects emerging and projected changes in dental prices and dental utilization rates.

**Target Loss Ratio**


The target loss ratio for this Form is **60%** at all durations.

**Claim Liability and Reserves**

An incurred but not reported claim reserve will be held for this Form. This reserve will be estimated based on the previous 12-months of claim lag data (claims by incurred and paid date).

**Actuarial Certification**

I, William Jeffery DeCapua, am an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" as adopted by the American Academy of Actuaries. I certify that to the best of my knowledge and judgment, this filing is in compliance with the applicable laws of the State and with the rules of the Department of Insurance; and complies with Actuarial Standards of Practice No. 8, "Regulatory Filings for Health Plan Entities", as adopted by the Actuarial Standards Board. The premiums are neither excessive, inadequate, nor unfairly discriminatory; and the benefits provided are reasonable in relation to the premiums charged.

A handwritten signature in cursive script, reading "Wm J. DeCapua", positioned above a horizontal line.

William J. DeCapua, ASA, MAAA  
Consulting Actuary

06/04/2014

Date



## Exhibit 1 – EHB SPDP Low PPO Option

Claim Cost, Premium, and AV Calculations - DC									
Child - Low Option - PPO									
In-Network					Out-Of-Network				
	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost		Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost
Category of Service					Category of Service				
Cleanings	T1	62	1.145	71.43	Cleanings	T1	93	1.145	106.36
Exams	T1	34	1.186	40.82	Exams	T1	64	1.186	76.37
Fluoride	T1	30	0.840	25.28	Fluoride	T1	44	0.840	36.76
Sealants	T1	44	0.567	24.95	Sealants	T1	66	0.567	37.18
Space Maintainers	T1	294	0.016	4.64	Space Maintainers	T1	460	0.016	7.25
Emergency Pain	T1	65	0.002	0.15	Emergency Pain	T1	125	0.002	0.30
Occlusal Guards	NA	0	0.000	0.00	Occlusal Guards	NA	0	0.000	0.00
Radiographs - Bitewings	T1	32	1.264	40.69	Radiographs - Bitewings	T1	52	1.264	65.64
Radiographs - FMX	T1	78	0.122	9.55	Radiographs - FMX	T1	138	0.122	16.73
Restorations (Amalgams & Anterior)	T2	107	0.489	52.47	Restorations (Amalgams & Anterior)	T2	179	0.489	87.66
Restorations (Posterior Resin)	T2	138	0.047	6.48	Restorations (Posterior Resin)	T2	240	0.047	11.24
Simple Extractions	T2	89	0.111	9.85	Simple Extractions	T2	178	0.111	19.75
Surgical Extractions	T2	385	0.078	30.20	Surgical Extractions	T2	549	0.078	43.03
Oral Surgery	T2	252	0.002	0.58	Oral Surgery	T2	526	0.002	1.20
Endodontics	T2	375	0.027	10.20	Endodontics	T2	532	0.027	14.47
Periodontal Maintenance	T2	136	0.000	0.06	Periodontal Maintenance	T2	168	0.000	0.08
Non-Surgical Periodontics	T2	182	0.004	0.66	Non-Surgical Periodontics	T2	234	0.004	0.86
Surgical Periodontics	T3	524	0.001	0.60	Surgical Periodontics	T3	662	0.001	0.76
Inlays	T3	564	0.000	0.03	Inlays	T3	1,071	0.000	0.05
Onlays	T3	687	0.000	0.13	Onlays	T3	1,304	0.000	0.25
Crowns	T3	947	0.006	5.64	Crowns	T3	1,299	0.006	7.73
Crown Repairs	T2	191	0.019	3.60	Crown Repairs	T2	319	0.019	6.03
Bridges	T3	853	0.000	0.25	Bridges	T3	1,066	0.000	0.31
Bridge Repairs	T2	122	0.000	0.00	Bridge Repairs	T2	164	0.000	0.00
Dentures	T3	1,397	0.000	0.14	Dentures	T3	1,784	0.000	0.17
Denture Repairs	T2	144	0.000	0.01	Denture Repairs	T2	184	0.000	0.02
Implants	NA	0	0.000	0.00	Implants	NA	0	0.000	0.00
Temporomandibular Joint	NA	0	0.007	0.00	Temporomandibular Joint	NA	0	0.007	0.00
Anesthesia	T2	273	0.024	6.63	Anesthesia	T2	370	0.024	8.99
Orthodontic Coverage	T4	5,129	0.008	38.47	Orthodontic Coverage	T4	5,129	0.008	38.47
In-Network					Out-Of-Network				
	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC			Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC	
Service					Service				
T1	217.51	5.14	18.13		T1	346.58	5.14	28.88	
T2	120.76	0.80	10.06		T2	193.33	0.80	16.11	
T3	6.78	0.01	0.57		T3	9.28	0.01	0.77	
T4	38.47	0.01	3.21		T4	38.47	0.01	3.21	
Total	383.52	5.96	31.96		Total	587.65	5.96	48.97	
Calculation					Out-of-Network				
	In-Network CHILD					Out-of-Network CHILD			
	T1	T2	T3	T4		T1	T2	T3	T4
Base Monthly Charges	18.13	10.06	0.57	3.21		28.88	16.11	0.77	3.21
Deductible Adjustment +/-	-4.82	-0.31	-0.04	0.00		-4.82	-0.31	-0.04	0.00
Sub-Total 2	13.31	9.76	0.53	3.21		24.06	15.81	0.73	3.21
Coinurance Adjustment	1.00	0.50	0.50	0.50		1.00	0.50	0.50	0.50
OOP Limit Adjustment	1.00	1.25	1.25	1.73		1.00	1.00	1.00	1.73
Sub-Total 3	13.31	6.10	0.33	2.77		24.06	7.90	0.37	2.77
	In-Network					Out-of-Network			
	Child					Child			
Combined Sub-Total	22.50					35.10			
Penetration Assumption	0.33					0.67			
Sub-Total 4	7.33					23.67			
	Blended								
	Child								
Blended In & Out Claim Cost	31.00								
Expense Percentage	60.0%								
Premium	51.66								
Actuarial Value Calculation - Low Plan									
Base (Gross) Monthly Charges - IN Child			31.96						
Net Monthly Charges - IN Child			22.50						
Actuarial Value - IN Child			70.4%						

## Exhibit 2 – EHB SPDP High PPO Option

Claim Cost, Premium, and AV Calculations - DC									
Child - High Option - PPO									
In-Network					Out-Of-Network				
Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost	Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost
Cleanings	T1	62	1.145	71.43	Cleanings	T1	93	1.145	106.36
Exams	T1	34	1.186	40.82	Exams	T1	64	1.186	76.37
Fluoride	T1	30	0.840	25.28	Fluoride	T1	44	0.840	36.76
Sealants	T1	44	0.567	24.95	Sealants	T1	66	0.567	37.18
Space Maintainers	T1	294	0.016	4.64	Space Maintainers	T1	460	0.016	7.25
Emergency Pain	T1	65	0.002	0.15	Emergency Pain	T1	125	0.002	0.30
Occlusal Guards	NA	0	0.000	0.00	Occlusal Guards	NA	0	0.000	0.00
Radiographs - Bitewings	T1	32	1.264	40.69	Radiographs - Bitewings	T1	52	1.264	65.64
Radiographs - FMX	T1	78	0.122	9.55	Radiographs - FMX	T1	138	0.122	16.73
Restorations (Amalgams & Anterior)	T2	107	0.489	52.47	Restorations (Amalgams & Anterior)	T2	179	0.489	87.66
Restorations (Posterior Resin)	T2	138	0.047	6.48	Restorations (Posterior Resin)	T2	240	0.047	11.24
Simple Extractions	T2	89	0.111	9.85	Simple Extractions	T2	178	0.111	19.75
Surgical Extractions	T2	385	0.078	30.20	Surgical Extractions	T2	549	0.078	43.03
Oral Surgery	T2	252	0.002	0.58	Oral Surgery	T2	526	0.002	1.20
Endodontics	T2	375	0.027	10.20	Endodontics	T2	532	0.027	14.47
Periodontal Maintenance	T2	136	0.000	0.06	Periodontal Maintenance	T2	168	0.000	0.08
Non-Surgical Periodontics	T2	182	0.004	0.66	Non-Surgical Periodontics	T2	234	0.004	0.86
Surgical Periodontics	T3	524	0.001	0.60	Surgical Periodontics	T3	662	0.001	0.76
Inlays	T3	564	0.000	0.03	Inlays	T3	1,071	0.000	0.05
Onlays	T3	687	0.000	0.13	Onlays	T3	1,304	0.000	0.25
Crowns	T3	947	0.006	5.64	Crowns	T3	1,299	0.006	7.73
Crown Repairs	T2	191	0.019	3.60	Crown Repairs	T2	319	0.019	6.03
Bridges	T3	853	0.000	0.25	Bridges	T3	1,066	0.000	0.31
Bridge Repairs	T2	122	0.000	0.00	Bridge Repairs	T2	164	0.000	0.00
Dentures	T3	1,397	0.000	0.14	Dentures	T3	1,784	0.000	0.17
Denture Repairs	T2	144	0.000	0.01	Denture Repairs	T2	184	0.000	0.02
Implants	NA	0	0.000	0.00	Implants	NA	0	0.000	0.00
Temporomandibular Joint	NA	0	0.007	0.00	Temporomandibular Joint	NA	0	0.007	0.00
Anesthesia	T2	273	0.024	6.63	Anesthesia	T2	370	0.024	8.99
Orthodontic Coverage	T4	5,129	0.008	38.47	Orthodontic Coverage	T4	5,129	0.008	38.47
In-Network					Out-Of-Network				
Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC		Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC	
T1	217.51	5.14	18.13		T1	346.58	5.14	28.88	
T2	120.76	0.80	10.06		T2	193.33	0.80	16.11	
T3	6.78	0.01	0.57		T3	9.28	0.01	0.77	
T4	38.47	0.01	3.21		T4	38.47	0.01	3.21	
Total	383.52	5.96	31.96		Total	587.65	5.96	48.97	
In-Network					Out-Of-Network				
Calculation	In-Network CHILD				Calculation	Out-Of-Network CHILD			
	T1	T2	T3	T4		T1	T2	T3	T4
Base Monthly Charges	18.13	10.06	0.57	3.21	Base Monthly Charges	28.88	16.11	0.77	3.21
Deductible Adjustment +/-	-1.98	-0.09	-0.01	0.00	Deductible Adjustment +/-	-1.98	-0.09	-0.01	0.00
Sub-Total 2	16.15	9.97	0.56	3.21	Sub-Total 2	26.90	16.02	0.77	3.21
Coinurance Adjustment	1.00	0.80	0.50	0.50	Coinurance Adjustment	1.00	0.80	0.50	0.50
OOP Limit Adjustment	1.00	1.06	1.25	1.73	OOP Limit Adjustment	1.00	1.00	1.00	1.73
Sub-Total 3	16.15	8.47	0.35	2.77	Sub-Total 3	26.90	12.81	0.38	2.77
In-Network					Out-Of-Network				
	Child					Child			
	T1	T2	T3	T4		T1	T2	T3	T4
Combined Sub-Total	27.74				Combined Sub-Total	42.87			
Penetration Assumption	0.33				Penetration Assumption	0.67			
Sub-Total 4	9.03				Sub-Total 4	28.91			
Blended									
	Child								
	T1	T2	T3	T4		T1	T2	T3	T4
Blended In & Out Claim Cost	37.94				Blended In & Out Claim Cost				
Expense Percentage	60.0%				Expense Percentage				
Premium	63.23				Premium				
Actuarial Value Calculation - High Plan									
Base (Gross) Monthly Charges - IN Child				31.96	Base (Gross) Monthly Charges - IN Child				
Net Monthly Charges - IN Child				27.74	Net Monthly Charges - IN Child				
Actuarial Value - IN Child				86.8%	Actuarial Value - IN Child				

### Exhibit 3 – EHB SPDP Low MAC Option

Claim Cost, Premium, and AV Calculations - DC									
Child - Low Option - MAC									
In-Network					Out-Of-Network				
Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost	Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost
Cleanings	T1	62	1.145	71.43	Cleanings	T1	62	1.145	71.43
Exams	T1	34	1.186	40.82	Exams	T1	34	1.186	40.82
Fluoride	T1	30	0.840	25.28	Fluoride	T1	30	0.840	25.28
Sealants	T1	44	0.567	24.95	Sealants	T1	44	0.567	24.95
Space Maintainers	T1	294	0.016	4.64	Space Maintainers	T1	294	0.016	4.64
Emergency Pain	T1	65	0.002	0.15	Emergency Pain	T1	65	0.002	0.15
Occlusal Guards	NA	0	0.000	0.00	Occlusal Guards	NA	0	0.000	0.00
Radiographs - Bitewings	T1	32	1.264	40.69	Radiographs - Bitewings	T1	32	1.264	40.69
Radiographs - FMX	T1	78	0.122	9.55	Radiographs - FMX	T1	78	0.122	9.55
Restorations (Amalgams & Anterior)	T2	107	0.489	52.47	Restorations (Amalgams & Anterior)	T2	107	0.489	52.47
Restorations (Posterior Resin)	T2	138	0.047	6.48	Restorations (Posterior Resin)	T2	138	0.047	6.48
Simple Extractions	T2	89	0.111	9.85	Simple Extractions	T2	89	0.111	9.85
Surgical Extractions	T2	385	0.078	30.20	Surgical Extractions	T2	385	0.078	30.20
Oral Surgery	T2	252	0.002	0.58	Oral Surgery	T2	252	0.002	0.58
Endodontics	T2	375	0.027	10.20	Endodontics	T2	375	0.027	10.20
Periodontal Maintenance	T2	136	0.000	0.06	Periodontal Maintenance	T2	136	0.000	0.06
Non-Surgical Periodontics	T2	182	0.004	0.66	Non-Surgical Periodontics	T2	182	0.004	0.66
Surgical Periodontics	T3	524	0.001	0.60	Surgical Periodontics	T3	524	0.001	0.60
Inlays	T3	564	0.000	0.03	Inlays	T3	564	0.000	0.03
Onlays	T3	687	0.000	0.13	Onlays	T3	687	0.000	0.13
Crowns	T3	947	0.006	5.64	Crowns	T3	947	0.006	5.64
Crown Repairs	T2	191	0.019	3.60	Crown Repairs	T2	191	0.019	3.60
Bridges	T3	853	0.000	0.25	Bridges	T3	853	0.000	0.25
Bridge Repairs	T2	122	0.000	0.00	Bridge Repairs	T2	122	0.000	0.00
Dentures	T3	1,397	0.000	0.14	Dentures	T3	1,397	0.000	0.14
Denture Repairs	T2	144	0.000	0.01	Denture Repairs	T2	144	0.000	0.01
Implants	NA	0	0.000	0.00	Implants	NA	0	0.000	0.00
Temporomandibular Joint	NA	0	0.007	0.00	Temporomandibular Joint	NA	0	0.007	0.00
Anesthesia	T2	273	0.024	6.63	Anesthesia	T2	273	0.024	6.63
Orthodontic Coverage	T4	5,129	0.008	38.47	Orthodontic Coverage	T4	5,129	0.008	38.47
In-Network					Out-Of-Network				
Service	Child Total Annual CC	Child Total Annual Util	Child Total Annual CC	Child Total Annual Monthly	Service	Child Total Annual CC	Child Total Annual Util	Child Total Annual CC	Child Total Annual Monthly
T1	217.51	5.14	18.13		T1	217.51	5.14	18.13	
T2	120.76	0.80	10.06		T2	120.76	0.80	10.06	
T3	6.78	0.01	0.57		T3	6.78	0.01	0.57	
T4	38.47	0.01	3.21		T4	38.47	0.01	3.21	
Total	383.52	5.96	31.96		Total	383.52	5.96	31.96	
In-Network					Out-of-Network				
In-Network CHILD					Out-of-Network CHILD				
	T1	T2	T3	T4		T1	T2	T3	T4
Base Monthly Charges	18.13	10.06	0.57	3.21	Base Monthly Charges	18.13	10.06	0.57	3.21
Deductible Adjustment +/-	-4.82	-0.31	-0.04	0.00	Deductible Adjustment +/-	-4.82	-0.31	-0.04	0.00
Sub-Total 2	13.31	9.76	0.53	3.21	Sub-Total 2	13.31	9.76	0.53	3.21
Coinurance Adjustment	1.00	0.50	0.50	0.50	Coinurance Adjustment	1.00	0.50	0.50	0.50
OOP Limit Adjustment	1.00	1.25	1.25	1.73	OOP Limit Adjustment	1.00	1.00	1.00	1.73
Sub-Total 3	13.31	6.10	0.33	2.77	Sub-Total 3	13.31	4.88	0.26	2.77
In-Network					Out-of-Network				
Child					Child				
Combined Sub-Total	22.50				Combined Sub-Total	21.21			
Penetration Assumption	0.33				Penetration Assumption	0.67			
Sub-Total 4	7.33				Sub-Total 4	14.31			
Blended									
Child									
Blended In & Out Claim Cost	21.63								
Expense Percentage	60.0%								
Premium	36.06								
Actuarial Value Calculation - Low Plan									
Base (Gross) Monthly Charges - IN Child			31.96						
Net Monthly Charges - IN Child			22.50						
Actuarial Value - IN Child			70.4%						

## Exhibit 4 – EHB SPDP High MAC Option

Claim Cost, Premium, and AV Calculations - DC									
Child - High Option - MAC									
In-Network					Out-Of-Network				
Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost	Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost
Cleanings	T1	62	1.145	71.43	Cleanings	T1	62	1.145	71.43
Exams	T1	34	1.186	40.82	Exams	T1	34	1.186	40.82
Fluoride	T1	30	0.840	25.28	Fluoride	T1	30	0.840	25.28
Sealants	T1	44	0.567	24.95	Sealants	T1	44	0.567	24.95
Space Maintainers	T1	294	0.016	4.64	Space Maintainers	T1	294	0.016	4.64
Emergency Pain	T1	65	0.002	0.15	Emergency Pain	T1	65	0.002	0.15
Occlusal Guards	NA	0	0.000	0.00	Occlusal Guards	NA	0	0.000	0.00
Radiographs - Bitewings	T1	32	1.264	40.69	Radiographs - Bitewings	T1	32	1.264	40.69
Radiographs - FMX	T1	78	0.122	9.55	Radiographs - FMX	T1	78	0.122	9.55
Restorations (Amalgams & Anterior)	T2	107	0.489	52.47	Restorations (Amalgams & Anterior)	T2	107	0.489	52.47
Restorations (Posterior Resin)	T2	138	0.047	6.48	Restorations (Posterior Resin)	T2	138	0.047	6.48
Simple Extractions	T2	89	0.111	9.85	Simple Extractions	T2	89	0.111	9.85
Surgical Extractions	T2	385	0.078	30.20	Surgical Extractions	T2	385	0.078	30.20
Oral Surgery	T2	252	0.002	0.58	Oral Surgery	T2	252	0.002	0.58
Endodontics	T2	375	0.027	10.20	Endodontics	T2	375	0.027	10.20
Periodontal Maintenance	T2	136	0.000	0.06	Periodontal Maintenance	T2	136	0.000	0.06
Non-Surgical Periodontics	T2	182	0.004	0.66	Non-Surgical Periodontics	T2	182	0.004	0.66
Surgical Periodontics	T3	524	0.001	0.60	Surgical Periodontics	T3	524	0.001	0.60
Inlays	T3	564	0.000	0.03	Inlays	T3	564	0.000	0.03
Onlays	T3	687	0.000	0.13	Onlays	T3	687	0.000	0.13
Crowns	T3	947	0.006	5.64	Crowns	T3	947	0.006	5.64
Crown Repairs	T2	191	0.019	3.60	Crown Repairs	T2	191	0.019	3.60
Bridges	T3	853	0.000	0.25	Bridges	T3	853	0.000	0.25
Bridge Repairs	T2	122	0.000	0.00	Bridge Repairs	T2	122	0.000	0.00
Dentures	T3	1,397	0.000	0.14	Dentures	T3	1,397	0.000	0.14
Denture Repairs	T2	144	0.000	0.01	Denture Repairs	T2	144	0.000	0.01
Implants	NA	0	0.000	0.00	Implants	NA	0	0.000	0.00
Temporomandibular Joint	NA	0	0.007	0.00	Temporomandibular Joint	NA	0	0.007	0.00
Anesthesia	T2	273	0.024	6.63	Anesthesia	T2	273	0.024	6.63
Orthodontic Coverage	T4	5,129	0.008	38.47	Orthodontic Coverage	T4	5,129	0.008	38.47
In-Network					Out-Of-Network				
Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC		Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC	
T1	217.51	5.14	18.13		T1	217.51	5.14	18.13	
T2	120.76	0.80	10.06		T2	120.76	0.80	10.06	
T3	6.78	0.01	0.57		T3	6.78	0.01	0.57	
T4	38.47	0.01	3.21		T4	38.47	0.01	3.21	
Total	383.52	5.96	31.96		Total	383.52	5.96	31.96	
In-Network					Out-Of-Network				
In-Network CHILD					Out-Of-Network CHILD				
	T1	T2	T3	T4		T1	T2	T3	T4
Base Monthly Charges	18.13	10.06	0.57	3.21	Base Monthly Charges	18.13	10.06	0.57	3.21
Deductible Adjustment +/-	-1.98	-0.09	-0.01	0.00	Deductible Adjustment +/-	-1.98	-0.09	-0.01	0.00
Sub-Total 2	16.15	9.97	0.56	3.21	Sub-Total 2	16.15	9.97	0.56	3.21
Coinurance Adjustment	1.00	0.80	0.50	0.50	Coinurance Adjustment	1.00	0.80	0.50	0.50
OOP Limit Adjustment	1.00	1.06	1.25	1.73	OOP Limit Adjustment	1.00	1.00	1.00	1.73
Sub-Total 3	16.15	8.47	0.35	2.77	Sub-Total 3	16.15	7.97	0.28	2.77
In-Network					Out-Of-Network				
	Child					Child			
Combined Sub-Total	27.74					27.17			
Penetration Assumption	0.33					0.67			
Sub-Total 4	9.03					18.32			
Blended									
	Child								
Blended In & Out Claim Cost	27.36								
Expense Percentage	60.0%								
Premium	45.59								
Actuarial Value Calculation - High Plan									
Base (Gross) Monthly Charges - IN Child			31.96						
Net Monthly Charges - IN Child			27.74						
Actuarial Value - IN Child			86.8%						

### Exhibit 5 – Sample Adult TADP Benefits Summary – PPO Plan

[illegible]







### Exhibit 8 – Sample Adult TADP Rate Calculation Summary – MAC Plan

Calculation		In-Network								Out-of-Network							
Step		In-Network ADULT				In-Network CHILD				Out-of-Network ADULT				Out-of-Network CHILD			
		A	B	C	Ortho	A	B	C	Ortho	A	B	C	Ortho	A	B	C	Ortho
1	Base Monthly Charges	9.732	4.902	12.453	0.000	10.836	6.050	1.368	6.223	9.732	4.902	12.453	0.000	10.836	6.050	1.368	6.223
2	Trend Adjustment	1.020	1.020	1.020	1.000	1.020	1.020	1.020	1.000	1.020	1.020	1.020	1.000	1.020	1.020	1.020	1.000
3	Rate Guarantee	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4	R&C Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Sub-Total 1	9.927	5.001	12.704	0.000	11.053	6.171	1.395	6.223	9.927	5.001	12.704	0.000	11.053	6.171	1.395	6.223
6	Deductible Adjustment +/-	0.000	-1.210	-0.470	0.000	0.000	-0.603	-0.050	0.000	0.000	-1.210	-0.470	0.000	0.000	-0.603	-0.050	0.000
7	Sub-Total 2	9.927	3.791	12.234	0.000	11.053	5.568	1.345	6.223	9.927	3.791	12.234	0.000	11.053	5.568	1.345	6.223
8	Plan Maximum Adjustment	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400
9	Maximum Roll Forward	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10	Deferred Benefits Adjustment	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000
11	Coinurance Adjustment	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500
12	Dependent Age Adjustment	1.000	1.000	1.000	1.000	1.025	1.025	1.025	0.830	1.000	1.000	1.000	1.000	1.025	1.025	1.025	0.830
13	Age/Gender Adjustment	0.980	0.960	1.010	1.000	1.000	1.000	1.000	1.000	0.980	0.960	1.010	1.000	1.000	1.000	1.000	1.000
14	Sub-Total 3	9.729	2.911	6.722	0.000	11.330	4.566	0.750	3.616	9.729	2.911	6.722	0.000	11.330	4.566	0.750	3.616
		In-Network								Out-of-Network							
		Adult	Child							Adult	Child						
15	Combined Sub-Total	19.362	20.262							19.362	20.262						
16	TMJ Lifetime Maximum	1.000	1.000							1.000	1.000						
17	Bleaching	1.000	1.000							1.000	1.000						
18	Industry Adjustment	1.000	1.000							1.000	1.000						
19	Case Size Adjustment	1.000	1.000							1.000	1.000						
20	Choice Plan Load	1.000	1.000							1.000	1.000						
21	Penetration Assumption	0.325	0.325							0.675	0.675						
22	Sub-Total 4	6.284	6.576							13.078	13.686						
		Blended															
		Ee	Sps	Child													
23	Blended In & Out Claim Cost	19.36	19.36	20.26													
25	PPO pepm Fee	0.60	0.00	0.00													
26	Expense Percentage	60.0%	60.0%	60.0%													
27a	Charged Premium	33.27	32.27	33.77													
27b	Manual Premium	33.27	32.27	33.77													

**Kansas City Life Insurance Company**  
**Group Dental Insurance Policy**  
**Actuarial Memorandum**  
**Policy Number PJ/CJ143**

**Scope and Purpose**

The purpose of this actuarial memorandum is to describe the benefits and assumptions for the attached Group Dental Insurance Policy, and to certify that this form is in compliance with the applicable laws and regulations of the state. This Policy Form applies to all group sizes. This memorandum is not intended to be used for any other purpose.

**Benefit Description**

This Form is designed to provide Dental Insurance benefits for employees and members of employer groups and associations and for their dependents. It is intended to be offered outside of the public exchanges. The standalone benefit plans for children under the age 19, are intended to provide pediatric Essential Health Benefits (EHB) in compliance with the Affordability Care Act (ACA) Standard Pediatric Dental Plan (SPDP) at either the high level (85%) or the low level (70%) of Actuarial Value. Traditional Adult Dental Plans (TADP) covering adults and adult children ages 19 and older can also be offered under this Policy Form, and are intended to provide dental benefits as described below in this section of the memorandum. The premiums may be paid by the employee, employer, member, association, or any combination.

- Under both the child EHB SPDP and adult TADP the benefits include coverage for some or all of the following types of dental services: preventive, diagnostic, basic, major, and orthodontia.
- Under the child EHB SPDP, plan design includes a deductible, annual maximum (out of network only), coinsurance, and out-of-pocket limit (in network only). The plan design can vary by type of service whether in or out of network. There can also be waiting periods, frequency limits, and age limits for certain procedures, as defined in the employee's or member's Policy.
- Under the adult TADP, plan designs include reimbursement for covered dental expenses found in the employee's or member's Policy, subject to any deductible, coinsurance (i.e. insurance percentages), and annual maximum. In addition, certain procedures may have a waiting period, age limits and/or frequency limits.
- The benefit payable for each covered procedure performed by a participating provider is based on a fee schedule accepted by the network of participating providers in the state. The benefit payable for each procedure performed by a non-participating provider is based on either this same network fee schedule for some plans Maximum Allowable Charge (MAC) plans, or is based on the company's definition of reasonable and customary fees for Preferred Provider Organization (PPO) plans.

- For new Kansas City Life Insurance Company (KCL) customers effective on or after 1/1/2015, KCL will offer the adult TADP plan design described in this memorandum along with the child EHB SPDP plan designs also described here. While KCL is not required to include EHB benefits in its plans, we want to have these benefits available for employer groups that want to include them.
- For existing (KCL) dental customers, KCL intends to update its existing standalone dental plans to include the (EHB) for children under the age of 19. KCL will pay claims based on the greater of the EHB benefits or the customer's existing plan of benefits. KCL's intention is to process these claims to ensure the lowest out-of-pocket cost for the dependents under the age of 19.

### **Renewability Clause**

This is an annually renewable Form for an annually rated group Policy. After an initial 12 month contract period, the contract is renewable on a month to month basis.

### **Marketing Method**

This Policy is intended to be distributed to employer groups and associations through independent agents and brokers.

### **Underwriting**

There is no individual underwriting of this Policy. This Policy is guaranteed issue.

### **Morbidity**

Claim costs for this plan are initially calculated separately for each of several categories of dental services (cleanings, exams, fluoride, etc.), and also separately for adults and children, and separately by in-network and out-of-network. The initial total charges are calculated by taking the product of the average charges for each category of service and the average annual utilization rates for each category of service. The average utilization rates were provided by an actuarial consulting firm, Actuarial Worksite Marketing Services, Inc. (AWMS), and are based on experience data contributed by their firm's dental clients during the period 2010-2012. The resulting initial total charges are then combined into four classes (preventive, basic, major, and ortho) by summing up each category, and are then converted to monthly costs by dividing by 12. The resulting base monthly charges are then adjusted as appropriate for deductibles, coinsurance, annual maximums, out of pocket limits, etc. to derive the projected monthly claim costs. These benefit adjustments are also based on factors provided by AWMS. The resulting monthly claim costs for both adults and children are then summed into in-network and out-of-network sub-totals, weighted by the assumed network penetration and combined, and finally divided by the target loss ratio to result in the projected monthly premium rates.

### Actuarial Value Calculation

For the child EHB SPDP only, Actuarial Value calculations have been performed and are shown below. This calculation divides the net in-network charges after deductible and coinsurance by the total in-network charges before cost sharing (e.g. deductible and coinsurance). The Actuarial Value for each of these plans is within 2% of the target Actuarial Value of 85% for the high plan and 70% for the low plan. The Actuarial Value is the same for both PPO and MAC plans.

Actuarial Value Calculation	Low	High
Gross Monthly Charges - IN Child	31.96	31.96
Net Monthly Charges - IN Child	22.50	27.74
Actuarial Value - IN Child	70.4%	86.8%

### Expenses

Expense assumptions are based on the company's expected costs for selling and administering this Group Dental Policy Form. Total expenses on this policy form will not exceed 35.0%.

Expenses Loads	Factor
Commission	15.00%
Overrides	5.00%
Administration	13.00%
Premium Tax	2.00%
Risk Margin	5.00%
Total Expense	40.00%

### Anticipated Loss Ratio

The Anticipated Loss Ratio for this Form is no less than 60.0% at each duration.

### Contingency and Risk Margins

This Form includes a contingency and risk margin of 5% of premium.

### Proposed Effective Date

This form will become effective 1/1/2015, upon approval by the Department of insurance.

### Persistency

Since this is an annually renewable Policy Form there is no persistency assumption necessary. Morbidity is assumed to be at the ultimate level in the first and all future durations. Any projected future morbidity changes will be incorporated into the premiums using an annual trend factor.

### **Premium Modalization Rules**

This Form can be billed weekly, bi-weekly, monthly, quarterly, semiannually, or annually. Weekly premiums are 1/52 of annual premiums, bi-weekly premiums are 1/26 of annual premiums, and monthly premiums are 1/12 of annual premiums. Quarterly premiums are 1/4 of annual premiums. Semiannual premiums are 1/2 of annual premiums.

### **Premium Classes**

This Form has no discrete premium classes for the child EHB SPDP. However, for the adult TADP certain factors are considered in pricing. These factors include: plan design, group size, contribution/participation percentage, prior coverage, geographic location, industry, and average age and gender of the employees/members.

### **Issue Age Range**

This Form can be issued to all ages. The child EHB SPDP will only be issued to children under the age of 19, and the rates will not vary by age. For the adult TADP, initial premiums are based on the issue ages of the entire group, union or association, and premiums are the same for all employees/members within it.

### **Area Factors**

For the child EHB SPDP, there are no area specific adjustments to rates. However, for the adult TADP, area factors are based on either the geographic location of each employee's or member's place of employment or home using the first 3 digits of the location's zip code. The data used to develop the area factors are based on a database that provides average charge information for each dental procedure by 3 digit zip code grouping. This database is used to develop relativity factors that reflect the differences in average dental charges in each location. Provider penetration percentages are based on the number of practicing network providers as compared to all practicing providers.

<b>Zip</b>	<b>Area Adjustor</b>	<b>Provider Penetration</b>
200	1.282	32.6%
202	1.282	0.0%
203	1.282	0.0%
204	1.282	0.0%
205	1.282	0.0%

### **Average Monthly Premium**

For the child EHB SPDP, benefits and monthly premiums for the Low and High plans, on a PPO and MAC basis, are shown in the following table and in the attached rate development in the attached rate **Exhibits 1 - 4**.

<b>PPO &amp; MAC Plan Benefits</b>				
<b>Benefits</b>	<b>Low - INN</b>	<b>Low - OON</b>	<b>High - INN</b>	<b>High - OON</b>
Deductible*	\$125	\$125	\$50	\$50
OOP Maximum**	\$350 / \$700	n/a	\$350 / \$700	n/a
Annual Maximum	unlimited	unlimited	unlimited	unlimited
Preventive (Type 1) - coins.	100%	100%	100%	100%
Basic (Type 2) - coins.	50%	50%	80%	80%
Major (Type 3) - coins.	50%	50%	50%	50%
Med. Nec. Ortho***	50%	not covered	50%	not covered

\* Deductible is per child and applies to all services except Med. Nec. Ortho.

\*\* Out-of-Pocket Maximum is \$350 per child or \$700 for all children combined.

\*\*\* 24-month waiting period on Med. Nec. Ortho. Only.

#### **PPO Plan Premiums**

EHB SPDP Low Plan	\$51.66
EHB SPDP High Plan	\$63.23

#### **MAC Plan Premiums**

EHB SPDP Low Plan	\$36.06
EHB SPDP High Plan	\$45.59

For the adult TADP, sample anticipated average annual premiums per certificate are provided below. The attached **Exhibits 5 & 6** and **Exhibits 7 & 8** are the benefit design and rate calculation pages for this sample average plan for PPO and MAC plans, respectively. They are based on a standard plan design with a \$50 deductible 3 per family limit waived for Type 1 services, \$1,500 annual maximum, \$1,500 lifetime maximum child orthodontia benefit, 12-month waiting period for Type 3 & 4 services, retail trade industry, 100%/80%/50%/50% Percentage of Covered Expense (i.e. coinsurance) for Type 1/2/3/4 services, assumed average age of 40-44 and a 50%/50% male/female split. While other plan design and rating combinations are possible with the rating methodology, the plan design provided here, along with the rates shown below, is considered a “middle of the road” plan design, neither excessively high nor low.

EE is defined as employee/member coverage only. ES is defined as employee/member and spouse coverage. EC is defined as employee/member and children. EF is defined as employee/member and family. Voluntary is defined as up to 29% employer contribution or employee participation. Contributory is defined as between 30% and 79% employer contribution or employee participation. Finally, employer paid is defined as 80% or more employer contribution or employee participation.

**PPO Plan Premiums - Traditional Adult Dental Plan (TADP)**

4-Tier	Voluntary	Contributory	Employer Paid
EE	\$48.51	\$44.10	\$39.69
ES	\$95.92	\$87.20	\$78.48
EC	\$129.16	\$117.42	\$105.68
EF	\$194.82	\$177.11	\$159.40

**MAC Plan Premiums - Traditional Adult Dental Plan (TADP)**

4-Tier	Voluntary	Contributory	Employer Paid
EE	\$36.60	\$33.27	\$29.94
ES	\$72.10	\$65.54	\$58.99
EC	\$98.39	\$89.45	\$80.50
EF	\$147.87	\$134.43	\$120.99

Also, provided as **Exhibit 9**, are all rating options and associated factors available within the adult TADP dental manual rating system, which provides a comprehensive listing of all possible benefit options within it.

**Trend Assumption**

An annual trend factor, currently 6% and not to exceed 10%, will be used to derive the premiums rates for effective dates beginning after January 1, 2015. This factor reflects emerging and projected changes in dental prices and dental utilization rates.

**Target Loss Ratio**

The target loss ratio for this Form is **60%** at all durations.

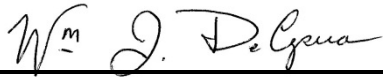
**Claim Liability and Reserves**

An incurred but not reported claim reserve will be held for this Form. This reserve will be estimated based on the previous 12-months of claim lag data (claims by incurred and paid date).



**Actuarial Certification**

I, William Jeffery DeCapua, am an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" as adopted by the American Academy of Actuaries. I certify that to the best of my knowledge and judgment, this filing is in compliance with the applicable laws of the State and with the rules of the Department of Insurance; and complies with Actuarial Standards of Practice No. 8, "Regulatory Filings for Health Plan Entities", as adopted by the Actuarial Standards Board. The premiums are neither excessive, inadequate, nor unfairly discriminatory; and the benefits provided are reasonable in relation to the premiums charged.

A handwritten signature in cursive script, reading "Wm J. DeCapua", positioned above a horizontal line.

William J. DeCapua, ASA, MAAA  
Consulting Actuary

06/04/2014

Date

## Exhibit 1 – EHB SPDP Low PPO Option

Claim Cost, Premium, and AV Calculations - DC									
Child - Low Option - PPO									
In-Network					Out-Of-Network				
Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost	Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost
Cleanings	T1	62	1.145	71.43	Cleanings	T1	93	1.145	106.36
Exams	T1	34	1.186	40.82	Exams	T1	64	1.186	76.37
Fluoride	T1	30	0.840	25.28	Fluoride	T1	44	0.840	36.76
Sealants	T1	44	0.567	24.95	Sealants	T1	66	0.567	37.18
Space Maintainers	T1	294	0.016	4.64	Space Maintainers	T1	460	0.016	7.25
Emergency Pain	T1	65	0.002	0.15	Emergency Pain	T1	125	0.002	0.30
Occlusal Guards	NA	0	0.000	0.00	Occlusal Guards	NA	0	0.000	0.00
Radiographs - Bitewings	T1	32	1.264	40.69	Radiographs - Bitewings	T1	52	1.264	65.64
Radiographs - FMX	T1	78	0.122	9.55	Radiographs - FMX	T1	138	0.122	16.73
Restorations (Amalgams & Anterior)	T2	107	0.489	52.47	Restorations (Amalgams & Anterior)	T2	179	0.489	87.66
Restorations (Posterior Resin)	T2	138	0.047	6.48	Restorations (Posterior Resin)	T2	240	0.047	11.24
Simple Extractions	T2	89	0.111	9.85	Simple Extractions	T2	178	0.111	19.75
Surgical Extractions	T2	385	0.078	30.20	Surgical Extractions	T2	549	0.078	43.03
Oral Surgery	T2	252	0.002	0.58	Oral Surgery	T2	526	0.002	1.20
Endodontics	T2	375	0.027	10.20	Endodontics	T2	532	0.027	14.47
Periodontal Maintenance	T2	136	0.000	0.06	Periodontal Maintenance	T2	168	0.000	0.08
Non-Surgical Periodontics	T2	182	0.004	0.66	Non-Surgical Periodontics	T2	234	0.004	0.86
Surgical Periodontics	T3	524	0.001	0.60	Surgical Periodontics	T3	662	0.001	0.76
Inlays	T3	564	0.000	0.03	Inlays	T3	1,071	0.000	0.05
Onlays	T3	687	0.000	0.13	Onlays	T3	1,304	0.000	0.25
Crowns	T3	947	0.006	5.64	Crowns	T3	1,299	0.006	7.73
Crown Repairs	T2	191	0.019	3.60	Crown Repairs	T2	319	0.019	6.03
Bridges	T3	853	0.000	0.25	Bridges	T3	1,066	0.000	0.31
Bridge Repairs	T2	122	0.000	0.00	Bridge Repairs	T2	164	0.000	0.00
Dentures	T3	1,397	0.000	0.14	Dentures	T3	1,784	0.000	0.17
Denture Repairs	T2	144	0.000	0.01	Denture Repairs	T2	184	0.000	0.02
Implants	NA	0	0.000	0.00	Implants	NA	0	0.000	0.00
Temporomandibular Joint	NA	0	0.007	0.00	Temporomandibular Joint	NA	0	0.007	0.00
Anesthesia	T2	273	0.024	6.63	Anesthesia	T2	370	0.024	8.99
Orthodontic Coverage	T4	5,129	0.008	38.47	Orthodontic Coverage	T4	5,129	0.008	38.47
In-Network					Out-Of-Network				
Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC		Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC	
T1	217.51	5.14	18.13		T1	346.58	5.14	28.88	
T2	120.76	0.80	10.06		T2	193.33	0.80	16.11	
T3	6.78	0.01	0.57		T3	9.28	0.01	0.77	
T4	38.47	0.01	3.21		T4	38.47	0.01	3.21	
Total	383.52	5.96	31.96		Total	587.65	5.96	48.97	
In-Network					Out-of-Network				
Calculation	In-Network CHILD				Calculation	Out-of-Network CHILD			
	T1	T2	T3	T4		T1	T2	T3	T4
Base Monthly Charges	18.13	10.06	0.57	3.21	Base Monthly Charges	28.88	16.11	0.77	3.21
Deductible Adjustment +/-	-4.82	-0.31	-0.04	0.00	Deductible Adjustment +/-	-4.82	-0.31	-0.04	0.00
Sub-Total 2	13.31	9.76	0.53	3.21	Sub-Total 2	24.06	15.81	0.73	3.21
Coinurance Adjustment	1.00	0.50	0.50	0.50	Coinurance Adjustment	1.00	0.50	0.50	0.50
OOP Limit Adjustment	1.00	1.25	1.25	1.73	OOP Limit Adjustment	1.00	1.00	1.00	1.73
Sub-Total 3	13.31	6.10	0.33	2.77	Sub-Total 3	24.06	7.90	0.37	2.77
In-Network					Out-of-Network				
	Child					Child			
	T1	T2	T3	T4		T1	T2	T3	T4
Combined Sub-Total	22.50				Combined Sub-Total	35.10			
Penetration Assumption	0.33				Penetration Assumption	0.67			
Sub-Total 4	7.33				Sub-Total 4	23.67			
Blended									
	Child								
	T1	T2	T3	T4		T1	T2	T3	T4
Blended In & Out Claim Cost	31.00				Blended In & Out Claim Cost				
Expense Percentage	60.0%				Expense Percentage				
Premium	51.66				Premium				
Actuarial Value Calculation - Low Plan									
Base (Gross) Monthly Charges - IN Child			31.96		Base (Gross) Monthly Charges - IN Child				
Net Monthly Charges - IN Child			22.50		Net Monthly Charges - IN Child				
Actuarial Value - IN Child			70.4%		Actuarial Value - IN Child				

## Exhibit 2 – EHB SPDP High PPO Option

Claim Cost, Premium, and AV Calculations - DC									
Child - High Option - PPO									
In-Network					Out-Of-Network				
Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost	Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost
Cleanings	T1	62	1.145	71.43	Cleanings	T1	93	1.145	106.36
Exams	T1	34	1.186	40.82	Exams	T1	64	1.186	76.37
Fluoride	T1	30	0.840	25.28	Fluoride	T1	44	0.840	36.76
Sealants	T1	44	0.567	24.95	Sealants	T1	66	0.567	37.18
Space Maintainers	T1	294	0.016	4.64	Space Maintainers	T1	460	0.016	7.25
Emergency Pain	T1	65	0.002	0.15	Emergency Pain	T1	125	0.002	0.30
Occlusal Guards	NA	0	0.000	0.00	Occlusal Guards	NA	0	0.000	0.00
Radiographs - Bitewings	T1	32	1.264	40.69	Radiographs - Bitewings	T1	52	1.264	65.64
Radiographs - FMX	T1	78	0.122	9.55	Radiographs - FMX	T1	138	0.122	16.73
Restorations (Amalgams & Anterior)	T2	107	0.489	52.47	Restorations (Amalgams & Anterior)	T2	179	0.489	87.66
Restorations (Posterior Resin)	T2	138	0.047	6.48	Restorations (Posterior Resin)	T2	240	0.047	11.24
Simple Extractions	T2	89	0.111	9.85	Simple Extractions	T2	178	0.111	19.75
Surgical Extractions	T2	385	0.078	30.20	Surgical Extractions	T2	549	0.078	43.03
Oral Surgery	T2	252	0.002	0.58	Oral Surgery	T2	526	0.002	1.20
Endodontics	T2	375	0.027	10.20	Endodontics	T2	532	0.027	14.47
Periodontal Maintenance	T2	136	0.000	0.06	Periodontal Maintenance	T2	168	0.000	0.08
Non-Surgical Periodontics	T2	182	0.004	0.66	Non-Surgical Periodontics	T2	234	0.004	0.86
Surgical Periodontics	T3	524	0.001	0.60	Surgical Periodontics	T3	662	0.001	0.76
Inlays	T3	564	0.000	0.03	Inlays	T3	1,071	0.000	0.05
Onlays	T3	687	0.000	0.13	Onlays	T3	1,304	0.000	0.25
Crowns	T3	947	0.006	5.64	Crowns	T3	1,299	0.006	7.73
Crown Repairs	T2	191	0.019	3.60	Crown Repairs	T2	319	0.019	6.03
Bridges	T3	853	0.000	0.25	Bridges	T3	1,066	0.000	0.31
Bridge Repairs	T2	122	0.000	0.00	Bridge Repairs	T2	164	0.000	0.00
Dentures	T3	1,397	0.000	0.14	Dentures	T3	1,784	0.000	0.17
Denture Repairs	T2	144	0.000	0.01	Denture Repairs	T2	184	0.000	0.02
Implants	NA	0	0.000	0.00	Implants	NA	0	0.000	0.00
Temporomandibular Joint	NA	0	0.007	0.00	Temporomandibular Joint	NA	0	0.007	0.00
Anesthesia	T2	273	0.024	6.63	Anesthesia	T2	370	0.024	8.99
Orthodontic Coverage	T4	5,129	0.008	38.47	Orthodontic Coverage	T4	5,129	0.008	38.47
In-Network					Out-Of-Network				
Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC		Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC	
T1	217.51	5.14	18.13		T1	346.58	5.14	28.88	
T2	120.76	0.80	10.06		T2	193.33	0.80	16.11	
T3	6.78	0.01	0.57		T3	9.28	0.01	0.77	
T4	38.47	0.01	3.21		T4	38.47	0.01	3.21	
Total	383.52	5.96	31.96		Total	587.65	5.96	48.97	
In-Network					Out-Of-Network				
Calculation	In-Network CHILD				Calculation	Out-Of-Network CHILD			
	T1	T2	T3	T4		T1	T2	T3	T4
Base Monthly Charges	18.13	10.06	0.57	3.21	Base Monthly Charges	28.88	16.11	0.77	3.21
Deductible Adjustment +/-	-1.98	-0.09	-0.01	0.00	Deductible Adjustment +/-	-1.98	-0.09	-0.01	0.00
Sub-Total 2	16.15	9.97	0.56	3.21	Sub-Total 2	26.90	16.02	0.77	3.21
Coinurance Adjustment	1.00	0.80	0.50	0.50	Coinurance Adjustment	1.00	0.80	0.50	0.50
OOP Limit Adjustment	1.00	1.06	1.25	1.73	OOP Limit Adjustment	1.00	1.00	1.00	1.73
Sub-Total 3	16.15	8.47	0.35	2.77	Sub-Total 3	26.90	12.81	0.38	2.77
In-Network					Out-Of-Network				
	Child					Child			
	T1	T2	T3	T4		T1	T2	T3	T4
Combined Sub-Total	27.74				Combined Sub-Total	42.87			
Penetration Assumption	0.33				Penetration Assumption	0.67			
Sub-Total 4	9.03				Sub-Total 4	28.91			
Blended									
	Child								
	T1	T2	T3	T4		T1	T2	T3	T4
Blended In & Out Claim Cost	37.94				Blended In & Out Claim Cost				
Expense Percentage	60.0%				Expense Percentage				
Premium	63.23				Premium				
Actuarial Value Calculation - High Plan									
Base (Gross) Monthly Charges - IN Child				31.96	Base (Gross) Monthly Charges - IN Child				
Net Monthly Charges - IN Child				27.74	Net Monthly Charges - IN Child				
Actuarial Value - IN Child				86.8%	Actuarial Value - IN Child				

### Exhibit 3 – EHB SPDP Low MAC Option

Claim Cost, Premium, and AV Calculations - DC									
Child - Low Option - MAC									
In-Network					Out-Of-Network				
Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost	Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost
Cleanings	T1	62	1.145	71.43	Cleanings	T1	62	1.145	71.43
Exams	T1	34	1.186	40.82	Exams	T1	34	1.186	40.82
Fluoride	T1	30	0.840	25.28	Fluoride	T1	30	0.840	25.28
Sealants	T1	44	0.567	24.95	Sealants	T1	44	0.567	24.95
Space Maintainers	T1	294	0.016	4.64	Space Maintainers	T1	294	0.016	4.64
Emergency Pain	T1	65	0.002	0.15	Emergency Pain	T1	65	0.002	0.15
Occlusal Guards	NA	0	0.000	0.00	Occlusal Guards	NA	0	0.000	0.00
Radiographs - Bitewings	T1	32	1.264	40.69	Radiographs - Bitewings	T1	32	1.264	40.69
Radiographs - FMX	T1	78	0.122	9.55	Radiographs - FMX	T1	78	0.122	9.55
Restorations (Amalgams & Anterior)	T2	107	0.489	52.47	Restorations (Amalgams & Anterior)	T2	107	0.489	52.47
Restorations (Posterior Resin)	T2	138	0.047	6.48	Restorations (Posterior Resin)	T2	138	0.047	6.48
Simple Extractions	T2	89	0.111	9.85	Simple Extractions	T2	89	0.111	9.85
Surgical Extractions	T2	385	0.078	30.20	Surgical Extractions	T2	385	0.078	30.20
Oral Surgery	T2	252	0.002	0.58	Oral Surgery	T2	252	0.002	0.58
Endodontics	T2	375	0.027	10.20	Endodontics	T2	375	0.027	10.20
Periodontal Maintenance	T2	136	0.000	0.06	Periodontal Maintenance	T2	136	0.000	0.06
Non-Surgical Periodontics	T2	182	0.004	0.66	Non-Surgical Periodontics	T2	182	0.004	0.66
Surgical Periodontics	T3	524	0.001	0.60	Surgical Periodontics	T3	524	0.001	0.60
Inlays	T3	564	0.000	0.03	Inlays	T3	564	0.000	0.03
Onlays	T3	687	0.000	0.13	Onlays	T3	687	0.000	0.13
Crowns	T3	947	0.006	5.64	Crowns	T3	947	0.006	5.64
Crown Repairs	T2	191	0.019	3.60	Crown Repairs	T2	191	0.019	3.60
Bridges	T3	853	0.000	0.25	Bridges	T3	853	0.000	0.25
Bridge Repairs	T2	122	0.000	0.00	Bridge Repairs	T2	122	0.000	0.00
Dentures	T3	1,397	0.000	0.14	Dentures	T3	1,397	0.000	0.14
Denture Repairs	T2	144	0.000	0.01	Denture Repairs	T2	144	0.000	0.01
Implants	NA	0	0.000	0.00	Implants	NA	0	0.000	0.00
Temporomandibular Joint	NA	0	0.007	0.00	Temporomandibular Joint	NA	0	0.007	0.00
Anesthesia	T2	273	0.024	6.63	Anesthesia	T2	273	0.024	6.63
Orthodontic Coverage	T4	5,129	0.008	38.47	Orthodontic Coverage	T4	5,129	0.008	38.47
In-Network					Out-Of-Network				
Service	Child Total Annual CC	Child Total Annual Util	Child Total Annual CC	Child Total Annual Monthly	Service	Child Total Annual CC	Child Total Annual Util	Child Total Annual CC	Child Total Annual Monthly
T1	217.51	5.14	18.13		T1	217.51	5.14	18.13	
T2	120.76	0.80	10.06		T2	120.76	0.80	10.06	
T3	6.78	0.01	0.57		T3	6.78	0.01	0.57	
T4	38.47	0.01	3.21		T4	38.47	0.01	3.21	
Total	383.52	5.96	31.96		Total	383.52	5.96	31.96	
In-Network					Out-of-Network				
In-Network CHILD					Out-of-Network CHILD				
	T1	T2	T3	T4		T1	T2	T3	T4
Base Monthly Charges	18.13	10.06	0.57	3.21	Base Monthly Charges	18.13	10.06	0.57	3.21
Deductible Adjustment +/-	-4.82	-0.31	-0.04	0.00	Deductible Adjustment +/-	-4.82	-0.31	-0.04	0.00
Sub-Total 2	13.31	9.76	0.53	3.21	Sub-Total 2	13.31	9.76	0.53	3.21
Coinurance Adjustment	1.00	0.50	0.50	0.50	Coinurance Adjustment	1.00	0.50	0.50	0.50
OOP Limit Adjustment	1.00	1.25	1.25	1.73	OOP Limit Adjustment	1.00	1.00	1.00	1.73
Sub-Total 3	13.31	6.10	0.33	2.77	Sub-Total 3	13.31	4.88	0.26	2.77
In-Network					Out-of-Network				
Child					Child				
Combined Sub-Total	22.50				Combined Sub-Total	21.21			
Penetration Assumption	0.33				Penetration Assumption	0.67			
Sub-Total 4	7.33				Sub-Total 4	14.31			
Blended									
Child									
Blended In & Out Claim Cost	21.63								
Expense Percentage	60.0%								
Premium	36.06								
Actuarial Value Calculation - Low Plan									
Base (Gross) Monthly Charges - IN Child			31.96						
Net Monthly Charges - IN Child			22.50						
Actuarial Value - IN Child			70.4%						

## Exhibit 4 – EHB SPDP High MAC Option

Claim Cost, Premium, and AV Calculations - DC									
Child - High Option - MAC									
In-Network					Out-Of-Network				
Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost	Category of Service	Child Type Of Service	Child Average Charge	Child Utilization Per 1000	Child Total Ann Cost
Cleanings	T1	62	1.145	71.43	Cleanings	T1	62	1.145	71.43
Exams	T1	34	1.186	40.82	Exams	T1	34	1.186	40.82
Fluoride	T1	30	0.840	25.28	Fluoride	T1	30	0.840	25.28
Sealants	T1	44	0.567	24.95	Sealants	T1	44	0.567	24.95
Space Maintainers	T1	294	0.016	4.64	Space Maintainers	T1	294	0.016	4.64
Emergency Pain	T1	65	0.002	0.15	Emergency Pain	T1	65	0.002	0.15
Occlusal Guards	NA	0	0.000	0.00	Occlusal Guards	NA	0	0.000	0.00
Radiographs - Bitewings	T1	32	1.264	40.69	Radiographs - Bitewings	T1	32	1.264	40.69
Radiographs - FMX	T1	78	0.122	9.55	Radiographs - FMX	T1	78	0.122	9.55
Restorations (Amalgams & Anterior)	T2	107	0.489	52.47	Restorations (Amalgams & Anterior)	T2	107	0.489	52.47
Restorations (Posterior Resin)	T2	138	0.047	6.48	Restorations (Posterior Resin)	T2	138	0.047	6.48
Simple Extractions	T2	89	0.111	9.85	Simple Extractions	T2	89	0.111	9.85
Surgical Extractions	T2	385	0.078	30.20	Surgical Extractions	T2	385	0.078	30.20
Oral Surgery	T2	252	0.002	0.58	Oral Surgery	T2	252	0.002	0.58
Endodontics	T2	375	0.027	10.20	Endodontics	T2	375	0.027	10.20
Periodontal Maintenance	T2	136	0.000	0.06	Periodontal Maintenance	T2	136	0.000	0.06
Non-Surgical Periodontics	T2	182	0.004	0.66	Non-Surgical Periodontics	T2	182	0.004	0.66
Surgical Periodontics	T3	524	0.001	0.60	Surgical Periodontics	T3	524	0.001	0.60
Inlays	T3	564	0.000	0.03	Inlays	T3	564	0.000	0.03
Onlays	T3	687	0.000	0.13	Onlays	T3	687	0.000	0.13
Crowns	T3	947	0.006	5.64	Crowns	T3	947	0.006	5.64
Crown Repairs	T2	191	0.019	3.60	Crown Repairs	T2	191	0.019	3.60
Bridges	T3	853	0.000	0.25	Bridges	T3	853	0.000	0.25
Bridge Repairs	T2	122	0.000	0.00	Bridge Repairs	T2	122	0.000	0.00
Dentures	T3	1,397	0.000	0.14	Dentures	T3	1,397	0.000	0.14
Denture Repairs	T2	144	0.000	0.01	Denture Repairs	T2	144	0.000	0.01
Implants	NA	0	0.000	0.00	Implants	NA	0	0.000	0.00
Temporomandibular Joint	NA	0	0.007	0.00	Temporomandibular Joint	NA	0	0.007	0.00
Anesthesia	T2	273	0.024	6.63	Anesthesia	T2	273	0.024	6.63
Orthodontic Coverage	T4	5,129	0.008	38.47	Orthodontic Coverage	T4	5,129	0.008	38.47
In-Network					Out-Of-Network				
Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC		Service	Child Total Annual CC	Child Total Annual Util	Child Total Monthly CC	
T1	217.51	5.14	18.13		T1	217.51	5.14	18.13	
T2	120.76	0.80	10.06		T2	120.76	0.80	10.06	
T3	6.78	0.01	0.57		T3	6.78	0.01	0.57	
T4	38.47	0.01	3.21		T4	38.47	0.01	3.21	
Total	383.52	5.96	31.96		Total	383.52	5.96	31.96	
In-Network					Out-Of-Network				
Calculation	In-Network CHILD				Calculation	Out-Of-Network CHILD			
	T1	T2	T3	T4		T1	T2	T3	T4
Base Monthly Charges	18.13	10.06	0.57	3.21	Base Monthly Charges	18.13	10.06	0.57	3.21
Deductible Adjustment +/-	-1.98	-0.09	-0.01	0.00	Deductible Adjustment +/-	-1.98	-0.09	-0.01	0.00
Sub-Total 2	16.15	9.97	0.56	3.21	Sub-Total 2	16.15	9.97	0.56	3.21
Coinurance Adjustment	1.00	0.80	0.50	0.50	Coinurance Adjustment	1.00	0.80	0.50	0.50
OOP Limit Adjustment	1.00	1.06	1.25	1.73	OOP Limit Adjustment	1.00	1.00	1.00	1.73
Sub-Total 3	16.15	8.47	0.35	2.77	Sub-Total 3	16.15	7.97	0.28	2.77
In-Network					Out-Of-Network				
Combined Sub-Total	Child				Combined Sub-Total	Child			
	T1	T2	T3	T4		T1	T2	T3	T4
Combined Sub-Total	27.74				Combined Sub-Total	27.17			
Penetration Assumption	0.33				Penetration Assumption	0.67			
Sub-Total 4	9.03				Sub-Total 4	18.32			
Blended									
Blended In & Out Claim Cost	Child				Blended In & Out Claim Cost				
	T1	T2	T3	T4		T1	T2	T3	T4
Blended In & Out Claim Cost	27.36				Blended In & Out Claim Cost				
Expense Percentage	60.0%				Expense Percentage				
Premium	45.59				Premium				
Actuarial Value Calculation - High Plan									
Base (Gross) Monthly Charges - IN Child				31.96					
Net Monthly Charges - IN Child				27.74					
Actuarial Value - IN Child				86.8%					

### Exhibit 5 – Sample Adult TADP Benefits Summary – PPO Plan

[illegible]

## Exhibit 6 – Sample Adult TADP Rate Calculation Summary – PPO Plan

Calculation		In-Network								Out-of-Network							
Step		In-Network ADULT				In-Network CHILD				Out-of-Network ADULT				Out-of-Network CHILD			
		A	B	C	Ortho	A	B	C	Ortho	A	B	C	Ortho	A	B	C	Ortho
1	Base Monthly Charges	9.732	4.902	12.453	0.000	10.836	6.050	1.368	6.223	14.208	7.723	15.781	0.000	16.055	9.038	1.831	6.223
2	Trend Adjustment	1.020	1.020	1.020	1.000	1.020	1.020	1.020	1.000	1.101	1.101	1.101	1.000	1.101	1.101	1.101	1.000
3	Rate Guarantee	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4	R&C Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.961	0.961	0.961	1.000	0.961	0.961	0.961	1.000
5	Sub-Total 1	9.927	5.001	12.704	0.000	11.053	6.171	1.395	6.223	15.026	8.168	16.689	0.000	16.980	9.559	1.936	6.223
6	Deductible Adjustment +/-	0.000	-1.210	-0.470	0.000	0.000	-0.603	-0.050	0.000	0.000	-1.210	-0.470	0.000	0.000	-0.603	-0.050	0.000
7	Sub-Total 2	9.927	3.791	12.234	0.000	11.053	5.568	1.345	6.223	15.026	6.958	16.219	0.000	16.980	8.956	1.886	6.223
8	Plan Maximum Adjustment	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400
9	Maximum Roll Forward	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10	Deferred Benefits Adjustment	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000
11	Coinsurance Adjustment	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500
12	Dependent Age Adjustment	1.000	1.000	1.000	1.000	1.025	1.025	1.025	0.830	1.000	1.000	1.000	1.000	1.025	1.025	1.025	0.830
13	Age/Gender Adjustment	0.980	0.960	1.010	1.000	1.000	1.000	1.000	1.000	0.980	0.960	1.010	1.000	1.000	1.000	1.000	1.000
14	Sub-Total 3	9.729	2.911	6.722	0.000	11.330	4.566	0.750	3.616	14.726	5.343	8.912	0.000	17.404	7.344	1.052	3.616
		In-Network								Out-of-Network							
		Adult	Child							Adult	Child						
15	Combined Sub-Total	19.362	20.262							28.981	29.416						
16	TMJ Lifetime Maximum	1.000	1.000							1.000	1.000						
17	Bleaching	1.000	1.000							1.000	1.000						
18	Industry Adjustment	1.000	1.000							1.000	1.000						
19	Case Size Adjustment	1.000	1.000							1.000	1.000						
20	Choice Plan Load	1.000	1.000							1.000	1.000						
21	Penetration Assumption	0.325	0.325							0.675	0.675						
22	Sub-Total 4	6.284	6.576							19.575	19.868						
		Blended															
		Ee	Sps	Child													
23	Blended In & Out Claim Cost	25.86	25.86	26.44													
25	PPO ppm Fee	0.60	0.00	0.00													
26	Expense Percentage	60.0%	60.0%	60.0%													
27a	Charged Premium	44.10	43.10	44.07													
27b	Manual Premium	44.10	43.10	44.07													
									</								

## Exhibit 7 – Sample Adult TADP Benefits Summary – MAC Plan

Group Name:	0																		
Group Location:	0																		
Target Loss Ratio:	60.0%																		
Product Type:	MAC Plan																		
Orthodontia Coverage:	No Ortho																		
Takeover / Virgin:	Takeover																		
Effective Date:	1/1/2015																		
Rate Guarantee:	12 months																		
Industry:	Retail Trade - Misc.																		



## Exhibit 8 – Sample Adult TADP Rate Calculation Summary – MAC Plan

Calculation		In-Network								Out-of-Network							
Step		In-Network ADULT				In-Network CHILD				Out-of-Network ADULT				Out-of-Network CHILD			
		A	B	C	Ortho	A	B	C	Ortho	A	B	C	Ortho	A	B	C	Ortho
1	Base Monthly Charges	9.732	4.902	12.453	0.000	10.836	6.050	1.368	6.223	9.732	4.902	12.453	0.000	10.836	6.050	1.368	6.223
2	Trend Adjustment	1.020	1.020	1.020	1.000	1.020	1.020	1.020	1.000	1.020	1.020	1.020	1.000	1.020	1.020	1.020	1.000
3	Rate Guarantee	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4	R&C Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	Sub-Total 1	9.927	5.001	12.704	0.000	11.053	6.171	1.395	6.223	9.927	5.001	12.704	0.000	11.053	6.171	1.395	6.223
6	Deductible Adjustment +/-	0.000	-1.210	-0.470	0.000	0.000	-0.603	-0.050	0.000	0.000	-1.210	-0.470	0.000	0.000	-0.603	-0.050	0.000
7	Sub-Total 2	9.927	3.791	12.234	0.000	11.053	5.568	1.345	6.223	9.927	3.791	12.234	0.000	11.053	5.568	1.345	6.223
8	Plan Maximum Adjustment	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400	1.000	1.000	1.250	1.400
9	Maximum Roll Forward	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10	Deferred Benefits Adjustment	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000	1.000	1.000	0.870	1.000
11	Coinsurance Adjustment	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500	1.000	0.800	0.500	0.500
12	Dependent Age Adjustment	1.000	1.000	1.000	1.000	1.025	1.025	1.025	0.830	1.000	1.000	1.000	1.000	1.025	1.025	1.025	0.830
13	Age/Gender Adjustment	0.980	0.960	1.010	1.000	1.000	1.000	1.000	1.000	0.980	0.960	1.010	1.000	1.000	1.000	1.000	1.000
14	Sub-Total 3	9.729	2.911	6.722	0.000	11.330	4.566	0.750	3.616	9.729	2.911	6.722	0.000	11.330	4.566	0.750	3.616
		In-Network								Out-of-Network							
		Adult	Child							Adult	Child						
15	Combined Sub-Total	19.362	20.262							19.362	20.262						
16	TMJ Lifetime Maximum	1.000	1.000							1.000	1.000						
17	Bleaching	1.000	1.000							1.000	1.000						
18	Industry Adjustment	1.000	1.000							1.000	1.000						
19	Case Size Adjustment	1.000	1.000							1.000	1.000						
20	Choice Plan Load	1.000	1.000							1.000	1.000						
21	Penetration Assumption	0.325	0.325							0.675	0.675						
22	Sub-Total 4	6.284	6.576							13.078	13.686						
		Blended															
		Ee	Sps	Child													
23	Blended In & Out Claim Cost	19.36	19.36	20.26													
25	PPO pepm Fee	0.60	0.00	0.00													
26	Expense Percentage	60.0%	60.0%	60.0%													
27a	Charged Premium	33.27	32.27	33.77													
27b	Manual Premium	33.27	32.27	33.77													